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OF THE OKLAHOMA STATE MEDICAL ASSOCIATION



TV STATION AIDS EYE BANK KICKOFF, Page 22

FOR PERSISTENT INFECTIONS

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Code of Ethical Standards

The Health Insurance Association of America is composed of 261 insurance companies in North America who offer voluntary health insurance to the public. Member companies represent more than 80 per cent of the health insurance provided by insurance companies in the U. S.

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Indeed this pledge is in the public interest.

Frequently we are asked, "Doctor, name a good health insurance company for me." Now our answer will simply be, "any HIAA member."—*J.M.*

Medicine and the Humanities

At noon on Thursday, October 11, Mr. Vincent Price, noted actor and art critic, addressed the medical students, on "The Meaning of Art to the Individual." This was the first in a series of weekly lectures in the humanities now being given to the entire student body of the School of Medicine. "What next?" some ask. Are we now exposing our students to the fine arts in a misguided attempt to impart the "Art of Medicine?"

Medicine, after all, is essentially scientific discipline. It is now more than ever based upon a sound foundation in the natural sciences; everyone appreciates that the laws of nature apply to man, and that an understanding of these laws is essential to an understanding of man and his diseases. The practice of medicine is today certainly more science than art. Doctors must then be trained as scientists.

This does not mean that there is a dichotomy between scientific and "humanitarian" medicine; far from it. They are the same thing. The physician who cannot apply the scientific method to the care of his

patients is incapable of succeeding in his humanitarian endeavors. On the other hand, the physician who does not understand the society and civilization in which he and his patients live cannot be aware of the influences which can alter, for better or worse, the health of his patients.

Because we believe that students with both a good scientific background and a better-than-average awareness of and appreciation for the world around them are more likely to develop into sensitive and intelligent physicians we make an effort to look for such attributes in selecting students for the study of medicine. We realize that our task in medical school is to provide the best scientific medical education of which we are capable, not to remake students into something new. A leading professor of medicine stated it well recently, "If he is not honest, sympathetic, and well integrated when he enters medical school, he is unlikely to be all these things when he leaves."

The acquisition of this scientific education in medical school is a full-time job; there is little or no time for students to pursue interests they may have outside medicine. It is no wonder, then, that during the four years of medical study there is a dulling of some of the facets whose scintillation caused us to select the student in the first place. The heavy pressures of the medical curriculum tend to obliterate all other intellectual interests of the students. Interests in art, music, or literature must in most cases remain dormant for four or more years.

The faculty believes, however, that this is both undesirable and unnecessary and that the breadth of education can be maintained or even increased during the medical training. We also believe that the humanities are just as important to the student in medical school as they were before he entered. Because the faculty believes in the importance and value of these interests a series of weekly lectures on art, music, literature, history, and philosophy have been instituted for all students in the School of Medicine. Whether these lectures open up new vistas or just help to keep alive the in-

terests which antedated entry into medical school they will serve the purpose for which they were intended.—*Peter V. Lee.*

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Our Doomed Orphanages

Recently three new adoption laws took effect in Oklahoma. They set up new procedure for adoptions as well as penalties designed to prevent "black marketing" of babies.

The adoption code was revised by our legislature because it recognized the tremendous demand for adoptable babies. It also recognized that so-called "grey market" adoptions where doctor, lawyer and judge joined forces to pass an infant of unknown physical and mental quality to an eager couple of equally unknown such qualities was too haphazard. The luckless infant involved in these transactions now will have some protection under the law.

The young husband and wife also will be protected because they will know that the baby they waited for so patiently will be reasonably sound and also that they need not fear that the real mother will appear a few years later to reclaim her child—just as occurred in the McCoy case, whose foster parents were forced to seek haven under the protection of the Florida courts to prevent loss of their beloved child, Hildy.

The Child Welfare League has found that there are about 100,000 children placed for adoption each year in the United States. Once upon a time, not too many years ago, most of these unfortunate babies would have been sequestered in an orphanage. Today, out of approximately 4,500,000 childless couples in the U.S. 1,000,000 of them are seeking children for adoption.

It being impossible to share one child with ten would-be foster-parents the welfare agencies are forced to be highly selective in the placement of these babies. We know that the agencies are sometimes arbitrary in their decisions, but we believe that they are

(Continued on Page 46)

Scientific Articles

The Radiologic Approach in

Problems of Gastrointestinal Hemorrhage

PAUL C. SWENSON, M.D.

In the management of the patient who is bleeding from the G. I. tract, it is the radiologist who is usually called upon to pinpoint the site of hemorrhage if possible, providing that the surgeon does not have to act immediately to save the patient's life. The x-ray examination remains the best means of localization short of a direct visualization through an endoscope.

It should be emphasized, however, that when a patient is referred to the radiologist as a gastrointestinal bleeding problem, there should be no set routine of examination. In the past, certain zonal divisions of the examination of the alimentary tube have been established, i. e., the upper G.I. tract, colon, and small intestine. This division has been a necessity in hospital patients' care. It is outgrowth of institutional departmental planning of the day's work, and is done for purposes of convenience and more meticulous technique. It probably works out to the advantage of the patient rather than to his disadvantage, since it goes without saying that better work can be done if the examination is not rushed. One of the unfortunate results of this necessary arbitrary division of the examination, however, has been a delay and a sharing of responsibility which, in the case of acute bleeding, is not good and the patient may suffer because of it. We therefore urge the abandonment of set routines in the case of acute bleeding from the G.I. tract. In the case of slow, chronic blood loss, the need for speed in diagnosis is not as great, for obvious reasons.

Why the need for reasonable speed? Simply that the earlier the diagnosis is made *after bleeding has stopped* in any case is not enough. We should make the diagnosis

THE AUTHOR

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before bleeding has ceased because the one lesion in particular that is notorious in escaping detection once bleeding has stopped happens to be one of the most common causes for hemorrhage, i. e., duodenal ulcer. In my experience, those that bleed without warning are most often the large acute ulcers in the duodenal bulb with little spastic or scarred deformity of the lumen. Thus, if one waits till the ulcer fills in with clot or heals over, one will obviously miss the diagnosis and waste valuable time looking elsewhere for a bleeding point lower down, exposing the patient to further unnecessarily tiring manipulation and x-ray exposure.

The objection often raised that it is hazardous for the patient to be examined while still bleeding is not valid. Rigid manipulation can be omitted. Moreover, it should be pointed out that the mere presence of the barium suspension within the lumen is no hazard. In fact, the barium may to some extent, be hemostatic; certainly it can do no greater harm than some of the diets given to bleeders as far as the mechanical effect is concerned.

The only contraindication to giving barium suspension by mouth as far as I know is perforation and low obstruction; and, of course, the evidence for this is usually quite outstanding. Rarely would one be misled into giving barium to a patient with a peptic ulcer or other lesion with an associated perforation. A patient with a low acute obstruction rarely exhibits bleeding and, if acute obstruction is present, it is usually obvious clinically and radiographically.

The early examination of the patient while still bleeding, of course, should only be done after he has been treated for any acute shock; but once shock has been overcome, the patient can be examined even while blood is being replaced or while other supportive therapy is being administered.

Usually the majority of patients are stabilized and free of shock within twelve to fifteen hours after admission to the hospital and then with careful handling can be studied radiographically.⁽¹⁾

Most institutions have now established "Bleeding Teams" which have served to improve the handling of the patient with massive bleeding from the G.I. tract.^(1,2) It seems the consensus that all patients should have a trial of medical management, including

early feeding and adequate buffering of the gastric juice. Patients who continue to bleed or rebleed in spite of medical therapy are considered candidates for prompt surgical intervention.

Only a little over half of the 285 patients seen by the bleeding management team at Jefferson Medical Center in Philadelphia had ulcer as the cause for bleeding. A number of these may have had only superficial ulcerations that could not be seen on radiologic examination.⁽¹⁾

Ulcer is found to be three times more frequent in the patient with cirrhosis and it is well to bear in mind that peptic ulcer can be the cause for bleeding even when varices are present.⁽¹⁾

The mortality rate rises sharply in those patients who continue to bleed or rebleed, particularly when the patient is over 45 years of age. The mortality rate in patients with gastric ulcer is twice that of those with duodenal ulcer.⁽¹⁾

We have been speaking, thus far, only of the massive acute bleeding where the loss of blood with its resulting effect on the patient is quite profound and is the presenting symptom. Chronic blood loss with its slow depleting effect is an entirely different matter. There is then no particular rush to establish the diagnosis.

The diagnosis of all lesions in the alimentary tube, regardless of their position or level and regardless of whether or not they are bleeding will not only depend upon the capabilities of the radiologist and the completeness of the study, but also on a well-developed level of suspicion on the part of both the referring clinician and the radiologic examiner. Nothing should be taken for granted. Every level should be considered a potential site of a lesion regardless of what the symptoms, if any, seem to dictate. We do not mean to ignore the pertinent notes in the history which might help direct our attention to a specific organ; but even though such a history would make us particularly vigilant in repeated examination of a certain site, yet it is the responsibility of the radiologist to satisfy himself



Fig. 1. A small growth in the esophagus obscured when the lumen is completely filled and distended with barium recognizable when lumen is partially empty. Fluoroscopy was important in picking up the lesion.

about every inch of the G.I. tract. It is the subtle unexpected lesion which he should look for even as the good automobile driver is constantly on the alert for the unexpected around every corner.

It might be well at this juncture to touch briefly upon what I consider the best practical method of examination and also say something about the protection of both patient and operator. So much has been discussed recently about the latter that the two are very intimately associated and dependent upon each other.

The radiologist has always attempted to stress the importance of realizing the potential dangers from the roentgen ray and all ionizing radiations. We have always preached that any radiation one did not have to receive was too much. Nevertheless, the recent summary of reports of the National Academy of Sciences has served to further emphasize this feature, particularly to the non-radiologic physician and to the lay public. It behooves us, therefore, even in the individual who is ill and in whom the added exposure to the ionizing rays is entirely

justified, to limit our exposure to the minimum requirement. This means, and we cannot stress this enough, that fluoroscopy should be limited to the minimum. This can be done by careful adaptation for fluoroscopic vision before attempting the examination, and then making the examination as short as possible by *thinking* while looking, thus avoiding any idle, useless scanning. The machines should be calibrated so that one at all times knows the dosage that the patient is getting. This entails attending to details which pay off in the end. There should be as little exposure to the gonads as possible during the period of fertility. Both fluoroscopy and films should be kept down to the absolute minimum; limited field size and adequate filtration of the x-ray beam are often neglected but are so very important.

Fluoroscopy is all-important in my opinion, but can be reduced in amount and this will help in limiting the number of films necessary by pointing up the suspicious areas in need of film examination for purposes of record and further clarification.



Fig. 2 A bleeding lesion on the esophagus. A tuberculous node had ulcerated through the esophageal wall.



Fig. 3. A large globular mass in the upper portion of the stomach, with a large ulcer cleft in its surface. A leiomyosarcoma.

Multiple spot films render less exposure and tissue dosage than one or two large films. If I were to dispense with one or the other, however, I would discard the films. The instance is rare indeed where there might be something seen on films that was not seen fluoroscopically; the opposite is more common in my experience.

The esophagus is a relatively difficult area to examine, for small non-obstructing lesions are easily missed as the barium flows by. In the undilated lumen, minor changes in the mucosa are not recognizable unless

carefully observed. Fig. 1 illustrates how easily an early and small carcinoma of the esophagus can be obscured by too much barium. A second case (Fig. 2) shows a benign lesion which was rather subtle in its manifestations. A calcifying mediastinal node had ulcerated through the esophageal wall and was the cause for bleeding.

More common causes for esophageal hemorrhages are varices and ulcers at the lower end. The varix may be so small as to be almost unrecognizable, particularly after rupture and bleeding and after peristalsis has served to obliterate it by squeezing out the blood. The large varices are, of course, easy to recognize.

The peptic ulcer at the lower end of the esophagus is relatively simple to recognize, particularly if there is the usual associated spasm at the site of the crater. When there is superficial ulceration within the constricted area of a hiatus hernia, there may be much difficulty in showing the actual site of ulceration and the diagnosis will sometimes have to be made by exclusion or by the test of therapy alone.

Peptic ulcers of the stomach rarely go unrecognized; superficial erosions accompanying gastritis are quite another problem. Often one sees presumptive evidence only in the form of altered motor phenomena and



Fig. 4. A leiomyoma of the duodenum, producing a smoothly rounded displacement defect in the lumen of the second portion.



Fig. 5. Large ulcer in the posterior wall of the duodenal bulb, obscured when the bulb was distended. Deformity from the crater only.

the heavy, irregular, for the most part fixed, mucosal pattern.

Tumors of both epithelial and mesenchymal origin may ulcerate and bleed; but only the ulcerating leiomyoma or leiomyosarcoma has resulted in massive hemorrhage in my experience, with the exception of an occasional deeply penetrating carcinomatous ulcer (Figs. 3 and 4).

The duodenal ulcer is the most common source of the massive hemorrhage. The acute, suddenly bleeding, ulcer in the bulb is the one most easily missed for there is usually little deformity of the bulb from scarring or spasm (Fig. 5). As has already been emphasized, they may be missed entirely if one waits with the examination until the bleeding has stopped; one was missed by one of my former associates because the crater was so large that it alone was considered as being a normally filled bulb.

Experience has shown that patients may have severe hemorrhages from a turgescient mucosa apparently associated with gastritis. We once were involved in a case where there had been an exanguinating hemorrhage requiring multiple life-saving transfusions in which exhaustive studies of the entire G.I. tract had revealed nothing specific in the way of a bleeding point. A subtotal resection was eventually done with recovery of the patient; but the specimen re-



moved likewise showed nothing specific. Others have had similar experiences.

The post-bulbar ulcer in the duodenum is not common but should always be suspected when lesions higher up have not been demonstrated in the face of bleeding. Its appearance is quite characteristic (Fig. 6).

Other more subtle lesions occur in the duodenum which can give rise to bleeding; benign and malignant tumors with ulceration, and even an occasional diverticulum. This last lesion is so often seen in the duodenum as to be considered entirely innocuous and incidental; but now and again there may



Fig. 6. Post-bulbar ulcer of the second portion of the duodenum.



Fig. 7. Bleeding duodenal diverticulum. See text.

be a surprising finding as follows: a 52 year old colored woman was admitted with the primary complaints of weakness, lack of appetite, hematemesis, melena and upper left quadrant pain. She showed signs of chronic blood loss. Gastric hyperacidity was present. Esophagoscopy, gastroscopy and sigmoidoscopy were negative. A diverticulum was noted in the duodenum (Fig. 7) which contained an area of lesser density suggesting some food remnants or blood clot. On the final G.I. study, the diverticulum could not be filled. The roentgenograms demon-



strated some radiating folds in the diverticulum with a small fleck of barium in the center of these folds. No operation was done in spite of the x-ray findings and the patient left the hospital only to be admitted shortly thereafter to another institution for severe gastrointestinal hemorrhage from which she did not survive. The post mortem description indicated that the abdomen was filled with blood from a perforated diverticulum in the region first described. Apparently the diverticulum contained a blood clot at the first examination.



Fig. 8. Distended small bowel proximal to a constriction from a small tumor.



Fig. 9. Same case as Fig. 8 after decompression. Localized lymphosarcoma of the ileum.

Once we have ruled out the more common lesions in the upper G.I. tract as a cause for bleeding, we must search lower down for a bleeding point. This is a more time consuming job and one requiring more meticulous effort. Every inch of small bowel must be covered in as short a time as possible. We have found that we can flood the bowel much faster when we use a non-flocculating barium. Frequent short fluoroscopic observations are required and sufficient films to cover the area that may appear suspicious fluoroscopically. The obstructing tumor is, of course, the easiest to find and the one which produces some narrowing or defect in the lumen. If the lesion is intramural or for the most part extramural, we are limited in what we can tell our referring

confrere. Sometimes the pressure of an extraluminal mass associated with a tiny point of ulceration in the bowel may be the only finding. The Miller-Abbott tube has been used in an attempt to find the level of bleeding, but this turns out to be a rather crude, inaccurate method since the bowel has a tendency to pleat itself back on the tube. However, it will localize the level of bleeding to the small bowel. The intussuscepting polypoid mass is the easiest to show and perhaps next to this the malignant tumor which contains a good deal of fibrogenic elements and produces an encircling lesion constricting the lumen. If obstruction exists, a decompression of the distended bowel is often desirable first before the exact nature of the lesion can be determined (Figs.

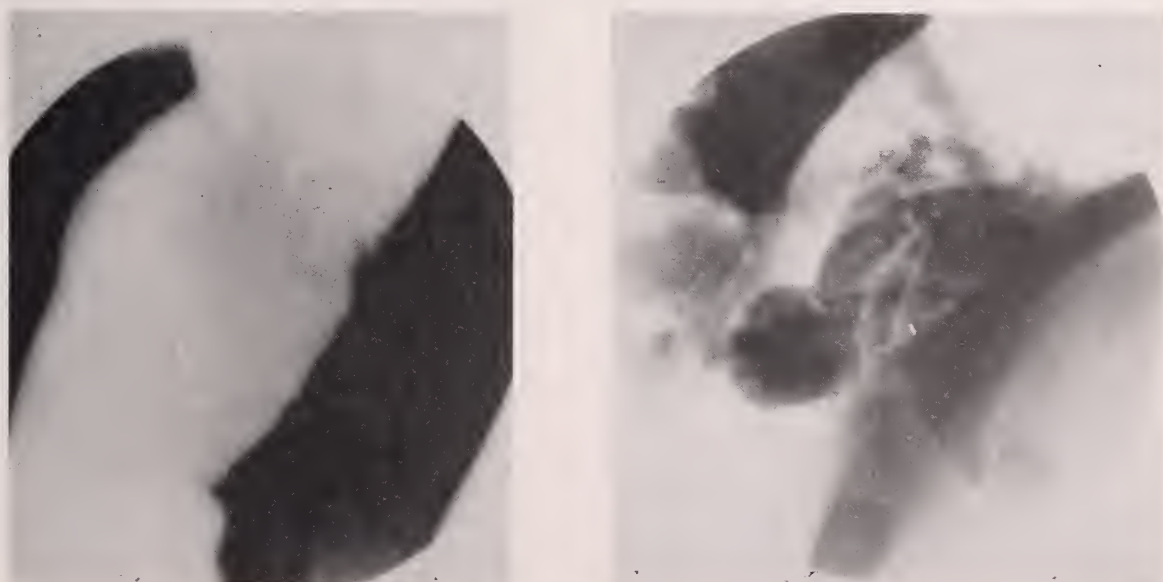


Fig. 10. Bleeding polyp of the colon. Pedicle is demonstrated. Compression required and fluoroscopic recognition.



Fig. 11. Diverticula of the sigmoid colon. The only apparent cause for bleeding uncovered after careful post mortem search.

9 and 10). Meckel's Diverticulum is difficult to demonstrate particularly when it is the offending lesion, since the presence of bleeding makes this true diverticulum as irritable as the rest of the bowel to which it is attached, and thus it is difficult to catch it filled on films and even at fluoroscopy.

The large bowel presents the least problem to the examiner once the patient is well prepared. We must have the colon clean if we are to discover small tumors and small bleeding points. The double contrast barium enema has come to be a routine for us in any question of obscure bleeding. Just how this procedure is done will vary with the personal whims of the examiner. Suffice it to say that in our office we experiment around with the patient with refills and mixtures of greater and lesser amounts of barium suspension and air until the optimum amount is obtained to show a particular lesion. We find them first by fluoroscopy and then proceed to show them by films. The acuity of vision varies a great deal among observers and I could of course get many an argument started about whether all polyps can be seen with sufficient degree of accuracy fluoroscopically. This we can say, however, from our own experience—that no polyp which was of clinical importance (the cause for hemorrhage) failed to be seen by us in the fluoroscope. Multiple small polyps are rarely the cause for

bleeding. They are of importance because of their potential malignant nature (Fig. 10).

Diverticula of the colon may apparently be the cause for bleeding at times even without associated inflammation. This was demonstrated (Fig. 11) in a case when this was the sole post mortem finding. A 56 year old white man had had episodes of bleeding from the bowel for the past ten years accompanied by epigastric symptoms. He was considered to have a peptic ulcer and died while being prepared for a subtotal gastrectomy for what was thought to be a massive hemorrhage from a bleeding peptic ulcer. At post mortem there was no evidence of peptic ulcer. The only positive finding was the presence of numerous diverticula in the colon. Only the colon contained blood; there was none in the stomach or small bowel.

Our responsibility as far as the colon is concerned is primarily limited to that portion above the rectum. The small lesion in the rectum is more easily evaluated by direct inspection through the proctoscope. The barium enema examination is of some value, however, in determining the extent of a known lesion, the fixation of the rectum, its displacement by external masses, etc.

Bleeding is encountered in advanced inflammatory disease such as ulcerative co-

litis, both localized and generalized. It can be of a very severe exanguinating nature.

Injuries occur to the colon during radiation therapy to the uterus and adnexa or any lower abdominal process requiring heavy radiation. Radiation sigmoiditis may bleed considerably. This condition is easily recognized if the entire circumference of the lumen is involved and the bowel is constricted with varying degrees of obstruction. Sometimes there may be small lesions of this type that escape detection by the x-ray completely, and yet be perfectly apparent on direct inspection.

Conclusions

In the case of bleeding from the GI tract, the cause should be searched for radiographically as soon as it is reasonably possible without harm to the patient. Con-

tinued bleeding by itself is no contraindication. It should be the responsibility of the radiologist to exercise vigilance in covering every inch of the alimentary tract before admitting failure in showing a point of hemorrhage. The unexpected is often there. The exposure of the patient to the roentgen ray should be kept to the minimum.

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Fifth in a Series-

STOP RHEUMATIC FEVER

Therapy and Prevention of Streptococcal Infections

The preceding articles in this series have emphasized the pertinent aspects of the relationship of streptococcal infections to the incidence of rheumatic fever, the evidence now available concerning the epidemiology of this particular pyogenic infection, the criteria for diagnosis of beta-hemolytic streptococcal infections which help raise the index of suspicion of the problem and hence its early management aimed to STOP RHEUMATIC FEVER, and some factors that are important to physicians who must try to "get the patient to the doctor" if they are to succeed in this all-important goal. The present communication presents no particularly outstanding new observations; indeed, the essence of the information related herein can be found in reports in various medical journals over the past few years and in publications of the American Heart Association. It is the hope of the Oklahoma State Heart Association to bring once more to the attention of the physicians of this state that the single prime pre-requisite to STOP RHEUMATIC REVER is the early

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This is the fifth in a series of articles prepared for *The Journal* under the auspices of the Oklahoma State Heart Association and its Committee on Professional Education, emphasizing the theme of the Association for the current year.

treatment of infections caused by the Group A beta-hemolytic streptococci, and second only to this major goal is the necessity of preventing recurrent streptococcal infections in individuals who have had rheumatic fever.

As pointed out in an earlier column, the vast majority of sore throats and respiratory infections are NOT due to the beta-streptococcus. Yet when this is the etiologic agent, the incidence of rheumatic fever may be expected to vary from three to five per cent in patients who do not receive bacteri-

cidal antimicrobial therapy. While this does not seem an astonishingly large number, if one merely adds the figures from state health department statistics on the incidence of streptococcal infections, these illnesses, if untreated, would create a great problem in medical practice. This has, in fact, occurred in our own generation, when major streptococcal epidemics occurred in the military services before adequate programs of therapeutics were available, and the necessary result was the establishment of major hospitals for the care of rheumatic fever and its complications, at a tremendous cost to the taxpayers, of whom the physicians number quite a few. There is little excuse for this happening again if we apply the information that is available to us. The armed services have established rather careful and sensitive indices of streptococcal incidence, and their Preventive Medicine Divisions are not at all reluctant to institute mass antibiotic therapy and/or prophylaxis on the slightest indication that a problem is developing. This is well documented, and it has not only saved many tax dollars, but such programs also sharply reduce the incidence of rheumatic fever and rheumatic heart disease following streptococcal infection, regardless of how the primary infection is manifested.

It is always well to define the aims and goals of therapy in relation to any program undertaken. If this were always done, then many therapeutic approaches would have been abandoned long ago for streptococcal infections as well as for many other infectious and non-infectious diseases. If the physician has been fortunate enough to "get the patient to the doctor" and has applied the diagnostic criteria to the best of his ability, and he then concludes that this is presumptively an infection due to a beta-hemolytic streptococcus, where does he go from there? In the first place, as noted earlier, diagnostic proof can come only from verification by a culture of the throat or nasopharynx. If for financial or other reasons, this is impossible, the doctor must depend upon the clinical criteria outlined previously. Emphasis is placed on the presence of exudate on the tonsils or in the nasopharynx, tender cervical adenopathy, a moderate to marked

leukocytosis, fever, constitutional symptoms, and perhaps dysphagia.

Lacking these findings, the physician may be committing an error in treating a patient for a "presumed" streptococcal infection. It is not uncommon to hear the most careful and learned physician say that "it is better to treat a few infections unnecessarily than to miss a few that ought to be treated." This point may be argued quite rationally. First, a sore throat (the predominant symptom in streptococcal infection) is more commonly caused by microorganisms other than the beta-hemolytic streptococcus, usually viruses. To rush in and "treat" these patients with penicillin or with any other antibiotic, for that matter, is not only unwise but at times dangerous. While penicillin remains by far the best antimicrobial agent available to physicians, it is also the most sensitizing. Certain investigators have estimated that allergy to penicillin in the population may be approaching ten per cent or more. Why should we needlessly sensitize human beings to drugs that are potentially life-saving at some later date? Similar remarks might be made about all the other antibiotics, since all have been implicated in some type of sensitivity reactions. The ancient dictum of "be sure what you are treating, and then treat it hard" still holds today. This, of course, does not necessarily imply that all respiratory infections require antimicrobial agents.

Before outlining the specific therapeutic programs and prophylactic regimens now recommended by the investigators most active in the field of streptococcal infections and rheumatic fever, a few comments on the peculiar susceptibility of certain individuals to streptococcal infections seem in order. In her classic studies, Wilson at the New York Hospital-Cornell Medical Center clearly showed that a child born to two parents who had had rheumatic fever was almost certain to develop this complication of streptococcal disease. This was among the first observations that host and genetic factors, perhaps some immunologic deficit, were important. A study at the Rockefeller Hospital for Medical Research in New York also clearly established that subjects who had once had

rheumatic fever had a higher incidence of sore throats, various respiratory infections, and proven streptococcal infections. The conclusion that one may properly infer from these data is that the individual who develops rheumatic fever is peculiarly susceptible to streptococcal infection, and thus he needs protection by way of prophylaxis as much as another patients needs early treatment to prevent the initial attack of rheumatic fever.

In a supplement to the December, 1956, issue of "Modern Concepts of Cardiovascular Disease," published by the American Heart Association, are summarized the opinions of this society on treatment and prophylaxis of streptococcal infections. The following remarks, while not necessarily direct quotations from this publication, are in context roughly equivalent to the opinions expressed there. Penicillin is always the drug of choice for the treatment of any patient suspected of having a streptococcal infection. Naturally, inquiry must be made as to possible hypersensitivity to the agent, and in that case erythromycin is the agent of choice. Penicillin must be administered in such a form and dosage as to achieve *bacteriological* as well as clinical cure. Since the average patient will feel subjectively well on the third or fourth day, this requires continuation of therapy at least four to seven days beyond "clinical cure." Oral penicillin, 250 mg. q.i.d., particularly the newer V salts, are as effective as any drugs if continued long enough, but their cost is still high. Daily intramuscular injections of 600,000 to 1,200,000 units of aqueous procaine penicillin are efficacious but usually inconvenient, as this requires daily trips to the doctor's office. Longer-acting forms of penicillin are now more commonly employed. One may use procaine penicillin with aluminum monostearate in oil, but this must be repeated every third day for three injections. A higher incidence of reactions may be expected with this regimen. Benzathine penicillin G has become the standard therapy for many physicians, if they can induce their patients to take the injections (apparently the intense local pain observed in some patients cannot be relieved by anything yet known). Depending upon the age of the pa-

tient, the dose of long-acting benzathine penicillin G will vary from 300,000 units in a child up to 1,200,000 units in an adult. As pointed out earlier this year in an editorial in *The Journal*, many physicians feel that benzathine penicillin G must be supplemented initially with a form that gives higher blood levels and more bactericidal activity. The key to therapy lies in just a few principles: 1) choosing a bactericidal antibiotic if the patient is not hypersensitive to it, 2) using a dosage scheme that will effect rapid clinical cure and produce negative cultures, indicating disappearance of the streptococcal antigen, and 3) continuation of therapy for a minimum of seven to ten days to insure a bacteriological cure as well as a clinical cure.

All individuals who have had rheumatic fever should be on some prophylactic regimen against streptococcal infections 365 days a year for life. The easiest technique is to give 1,200,000 units of benzathine penicillin G once monthly, but many patients do not tolerate this program, however convenient it may be. The least expensive method is daily oral sulfadiazine, 0.5 to 1.0 gm. daily, but one must watch carefully for signs of toxicity. The oral penicillin preparations, especially the V salts, in a dosage of 250,000 to 500,000 units daily, are bactericidal and completely effective; but their cost is greater than either of the preceding two regimens. It must be remembered that human nature enters into these programs of prophylaxis, and most patients on daily medications are likely to forget their pills from time to time. On the other hand, if the patient reacts markedly to benzathine penicillin G once monthly to the extent that he does not return for further management, it is safer for him to miss a day here and there than to be on no program at all. The wisdom and art of the practicing physician are called forth at this point.

Irrespective of all other considerations, the only way to STOP RHEUMATIC FEVER is to treat streptococcal infections early and to maintain patients with previous rheumatic fever on continuous programs of prophylaxis. Some aspects of the problem, and the current recommendations for therapy and prophylaxis have been discussed.

The Role of Tracheotomy in ANTERIOR POLIOMYELITIS

RAFAEL RIGUAL, M.D.

With development of thesis of sectional obstruction as the cause of much of the clinical picture in bulbar poliomyelitis, the otolaryngologist has become an integral part of the team for the treatment of poliomyelitis. It has become the function of the laryngologist and bronchoscopist to establish and maintain an adequate airway in patients with respiratory difficulties. This is accomplished by tracheotomy early in the disease, and by bronchoscopy when necessary during the period when pulmonary complications develop.

It has been recognized that a small group of patients with poliomyelitis have actual disease of the vital centers of the brain which may cause death. Clinical observation warrants the conclusion that death is most commonly caused by progressive oxygen lack and carbon dioxide accumulation from obstruction of the airway by mucus, which may also lead to atelectasis and pneumonia.

The development of anoxia early in the disease depends on an interesting series of events which may eventually result in pulmonary complications and death. Pharyngeal paralysis due to involvement of the affected cranial nerves together with the hypersecretion which commonly occurs in these patients results in accumulation and pooling of secretions in the back of the mouth. With each inspiration these secretions may overflow into the trachea and actually be sucked into the tracheo-bronchial tree. This is more likely to occur when swallowing is difficult. If such a patient is placed in a respirator with no attempt to clear the drowned upper respiratory tract, his breathing is further embarrassed and ultimately lower respiratory tract disease such as pneumonia, tracheobronchitis or atelectasis will appear.

Tracheotomy bypasses the obstruction in the larynx and permits easy access for removal of the contaminated secretions which are literally drowning the patient.

Ordinarily, the use of the respirator alone

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is contraindicated when the patient is unable to clear his airway, since it can only result in sucking the secretions deep into the tracheobronchial tree. When tracheotomy is done there is easy access for a catheter to keep the airway clear and the respirator may be used with less danger of complications.

Studies have disclosed that postural drainage and oropharyngeal suctioning are inadequate to maintain a clear airway even in patients with minor involvement. Another factor to remember is that postural drainage is usually not readily tolerated for any length of time. The Trendelenburg position causes the abdominal organs to press on the diaphragm and after a short time reduces the vital capacity of the patient.

The usual indications for tracheotomy should not be permitted to appear in this disease. To await the usual signs of respiratory obstruction is, too often, to await until the involvement is beyond control. Patients with respiratory muscle paralysis do not show retraction nor are there the usual signs of laryngeal obstruction. Ideally, tracheotomy should be performed early, before clinical evidence of respiratory insufficiency or asphyxia is present, and certainly before aspirations of oropharyngeal secretions into the lung has taken place.

Indications for tracheotomy in general:

1. Inability to clear the oropharyngeal

secretions by coughing or swallowing with or without coma.

2. Evidence of laryngeal obstruction due to either adductor spasm or abductor paralysis.
3. Recurrent episodes of cyanosis, especially during feeding.
4. Evidence of cerebral asphyxia by symptoms of irrationality, restlessness, excitement or coma.
5. Rapidly progressing symptoms of bulbar involvement, and associated rapid decrease in vital capacity shown by serial ventilation measurement.
6. Need for respirator in a patient with bulbar symptoms.

After the tracheotomy has been performed, it is very important to have trained nursing personnel available. In itself tracheotomy is not life saving if the personnel caring for the patient thereafter is not properly trained to continue to keep the airway free of secretions. The frequency of suctioning of the tracheobronchial tree is an individual problem and must be done as often as necessary to maintain a free airway. We have had no deaths that could be attributed to the surgery tracheotomy itself. Mediastinal emphysema, subcutaneous emphysema and pneumothorax have been extremely rare. The mortality of tracheotomy has been reported below 1%.

Advantages of tracheotomy:

1. It provides an adequate airway.
2. Maintenance of an adequate airway by suctioning the secretions from the lower respiratory tree.
3. It makes possible the use of bronchoscopy without the cooperation of the patient and without causing him much discomfort, if suctioning alone is not adequate to remove obstructive mucus or mucous plugs which are infected and which may result in atelectasis or pneumonia.
4. Tracheotomy makes possible the use of intratracheal positive pressure with humidification and nebulization when it is indicated.

Many patients require a tracheotomy opening for many months.

The tracheotomy should not be closed unless the following conditions are present:

1. There must be complete return of swallowing.
2. There must be return of the ability to cough with a tussive force sufficient to clear the respiratory tract.
3. The laryngeal muscles must permit maintenance of an adequate airway.
4. If the patient has weakness of the respiratory muscles which has made necessary the use of the respirator, he must show evidence of sufficient return of function to maintain adequate oxygenation of the tissues by vital capacity readings.
5. There must be no evidence of a pulmonary complication which indicates bronchial obstruction, particularly atelectasis.

Summary

Tracheotomy has an important role in the management of bulbar poliomyelitis. It should be performed early before clinical evidence of respiratory insufficiency or asphyxia is present, and certainly before aspiration of oropharyngeal secretions into the lung has taken place.

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Chlorpromazine as Masking Agent

in INTESTINAL OBSTRUCTION

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Chlorpromazine was first synthesized in France in 1950, and its use throughout Europe followed. It was first used clinically in the United States in 1954. As of June 1956, over seven million patients had been treated with Chlorpromazine. Chemically it is similar to Phenergan, an antihistamine, but lacks a marked antihistaminic effect.

Its principle action is on the higher neural centers; depressing the diencephalon, hypothalamus, and reticular substance. Vomiting is diminished by selectively inhibiting the chemoreceptor trigger zone of the diencephalon. The drug has many effects; affecting such diverse functions as vomiting, temperature regulation, wakefulness, vasomotor tone, muscle tone, and secretion of anterior lobe of pituitary.

In order to study the physiologic effects of Chlorpromazine on the intact small intestine, two dogs had a 12 cm. segment of distal ileum exteriorized and covered with skin. This resembled the handle of a suitcase. This procedure of course, did not interrupt the continuity of the intestinal tract. These animals were observed intermittently while awake over a period of several months. Motility of the isolated loop was observed before, during and after feedings. One animal was given Chlorpromazine in varying amounts and the other animal used as a control. The dogs were altered as subject and control with varying amounts of Chlorpromazine being given parenterally. Chlorpromazine had no consistent effect on the intensity, onset, duration, and number of peristaltic waves.

Continuing this study, the effect of Chlorpromazine was studied on high intestinal

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obstructions in mongrel dogs. All animals were anesthetized with intravenous phenobarbital. The duodenum, just below the entrance of the common bile duct and pancreatic ducts, was completely divided and each end inverted using a standard two layer closure.

Ten animals were given Chlorpromazine, 2 or 4 mg/kg every four hours post-operatively intramuscularly until their death. Ten dogs similarly received sodium phenobarbital 2 or 4 mg/kg every four hours intramuscularly. The ten control animals received the small amount of saline that corresponded to the volume of the diluent for the Chlorpromazine or phenobarbital which was 1 or 2 cc/kg daily.

Phenobarbital was given as an additional control because of its central sedative effect (Figure 1).

The average survival time for the three groups of animals was quite similar. However, the average time of the onset of vomiting was delayed in those receiving phenobarbital two times, and in those receiving Chlorpromazine two and one half times that of the control group.

30 DOGS WITH HIGH INTESTINAL OBSTRUCTION

	Control	Phenobarbital	Chlorpromazine
Survival	71.4 hrs.	82.6 hrs.	77.8 hrs.
Onset of Vomiting	14.4 hrs.	30.2 hrs.	34.0 hrs.
Amount of Vomitus	882 cc	504 cc	433 cc

Figure 1

The total quantity of vomitus of the two groups receiving medication was approximately one half that of the control.

Conclusion

Over 5,000 reports have been published on Chlorpromazine. It is known and well proven that Chlorpromazine is a potent and effective antemetic in many conditions. But, like other good drugs, it can be abused. Chlorpromazine has been used all too frequently symptomatically as the treatment of vomiting without determining the underlying cause. When intestinal obstruction is present, operation could be delayed to the point of irreversibility.

To Summarize

1. Chlorpromazine has no consistent effect on motility of gut; its effects being on the chemoreceptor trigger zone in the diencephalon.
2. Chlorpromazine significantly delays the onset of vomiting in complete high intestinal obstruction.
3. Chlorpromazine decreases the total vomitus in intestinal obstruction.
4. Chlorpromazine does not lengthen the survival time in intestinal obstruction.

Thus: Its overall effect will mask intestinal obstruction.

A Preliminary Report of

URINARY TESTS *for* PORPHIBILINOGEN

ELWOOD HERNDON, M.D.

Human porphyria, though a relatively rare disease, occupies a unique position in the field of porphyrin metabolism. This disorder has previously been defined as a disease characterized by the excretion of uroporphyrin and its precursors. Recent studies, however, reveal uroporphyrin and its precursors to be normal constituents of human urine. The amount excreted is increased by certain toxins and disease processes. Coproporphyrin is the predominant porphyrin excreted in urine and feces. Normal urinary excretion for males is 100 to 300 micrograms daily, and for females is 75 to 275 micrograms daily. The daily urinary excretion increases in liver disease to 300 to 800 micrograms; in Hodgkin's disease to 200 to 1000 micrograms; and in acute alcoholism 250 to 500 micrograms.¹ A better definition would include both the excessive excretion of uroporphyrin and porphyrin precursors, and the characteristic clinical manifesta-

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tions which will be described later.²

Porphyrins are present in free or bound form in practically every cell of nearly all forms of life.³ They are characterized by a ring structure of four pyrrol nuclei and differ one from the other by virtue of the side chains attached to the pyrrol nuclei. These vital and well known rings combine with metals and proteins to form the respiratory pigments. Four pyrrol groups combined with iron forms the porphyrin known as heme. Addition of globin produces the molecule known as hemoglobin. Some other porphyrin containing compounds are chlorophyll, myoglobin, cytochrome, catalase and

peroxidase. The body is able to synthesize pyrrol and heme porphyrin from relatively simple and abundant chemical substances.

A new classification of porphyria has been proposed in terms of the tissues responsible for the excess of porphyrin formation. When thus divided, the two major forms of porphyria are either of erythropoietic or of hepatic origin. The latter is further subdivided on the basis of both clinical and chemical distinctions into cutanea tarda and acute intermittent types. A mixed form represents a combination of the two. A latent form may be found in relatives of patients with hepatic porphyria. Urine from patients with latent porphyria may show a weakly positive urinary porphobilinogen although the clinical manifestations are absent.

In this study we are interested primarily in the acute intermittent porphyria. Some of the distinguishing features of this disorder are: abdominal colic, paresis and paralysis, psychic disturbances, hypertension, oliguria, and constipation. Porphobilinogen may be present in the urine, which may be of normal color, but may darken on standing.

Urinary porphobilinogen is detected by a simple office procedure described by Watson and Schwartz.⁴ In the past it has been thought that a positive porphobilinogen reaction is pathognomic for acute intermittent porphyria. Watson subsequently reports that in fifteen years observation he has encountered only twelve patients with "non-porphyria" positive porphobilinogen reactions. These twelve were classified as follows: 1) liver disease, 2) malignant diseases⁵ and 3) infections and nervous diseases. Welcker and Hammond examined 1000 random patients without finding a single positive reaction.⁶

In the last three years at Wesley Hospital, a number of people have been seen with the clinical manifestation of acute intermittent porphyria. Urinary porphobilinogen tests have been unreliable as criteria for diagnosis because 1) negative tests frequently occur in patients who have symptoms, and 2) positive tests sometimes occur in patients who do not have symptoms.

This uncertainty as to the specificity and

reliability of this reaction prompted a large scale survey at Wesley Hospital with the following objectives:

1. To further evaluate the specificity of the Watson-Schwartz reaction for porphobilinogen and to evaluate its usefulness as an office procedure.
2. To determine the number of questionable or false positive reactions obtained in a larger number of patients.
3. To determine under what conditions questionable or false positive reactions occur.
4. To accumulate additional data on the relationship of abnormal porphyrin metabolism to clinically recognized disease.
5. As a guide to future and more complete studies.

This survey was started in the summer of 1956, utilizing existing laboratory facilities and personnel. Urines from all patients admitted to Wesley Hospital during the daytime and some out-patients from the Oklahoma City Clinic were routinely checked for porphobilinogen as described by Watson and Schwartz.⁴

The test is as follows: An equal volume of Ehrlich's reagent is mixed with a few ml of freshly voided urine. Two volumes of aqueous saturated sodium acetate are added and mixed. A few ml of chloroform are added and shaken vigorously. Presence of porphobilinogen is indicated by the formation of red-colored porphobilinogen-aldehyde on addition of Ehrlich's reagent. This color remains entirely within the aqueous phase after mixing with chloroform. Urobilinogen produces a similar red-colored urobilinogen-aldehyde after the sodium acetate is added and is soluble in the chloroform.

When this survey was interrupted, a total of five thousand patients had been checked. Twenty-nine (0.58%) positive reactions were found.

Bray reports that ingestion of Pyridium produces false positive urobilinogen tests.⁷ Seven patients in this series had received Pyridium for urinary tract infections so their reactions were discarded. Of the remaining twenty-two patients, nineteen had

only one positive reaction, fourteen of which were on the first specimen after admission. The other five were found from the fourth to the twenty-first day. Two patients each had two positive reactions; one on the first and second days and the other on the first and fifth days. The other patient had four positives; on the first, fourth and seventh days of one admission and on the first day of a subsequent admission.

Two patients included in this series were diagnosed acute intermittent porphyria before this series began. The remaining twenty patients who had positive reactions are classified as questionable or false positives. Of this group six had some of the clinical symptoms of acute intermittent porphyria and are further classified as probable acute intermittent porphyria. The admitting diagnoses of these six were: one alcoholic cirrhosis, two mental depressions, one acute alcoholic depression, one diabetes mellitus, and one intestinal obstruction.

The twenty patients with questionable or false positive reactions are further classified into groups depending upon admitting diagnoses and or organ systems involved. The first three groups are the same as reported by Watson.

Liver disease (alcoholic cirrhosis)	3
(One also included in the hemorrhage group)	
Malignant disease (Hodgkin's)	1
(Also listed in hemorrhage group)	
Nervous diseases	4
Includes one with neuritis of left arm, two with acute mental depression and one with acute alcoholic depression.	
Diabetes Mellitus	2
Hemorrhage	5
Includes one ruptured intracranial aneurysm, one postpartum afibrinogenemia, one cirrhosis with melena and hemetemeses, one intestinal obstruction, and one Hodgkin's disease. Three of these patients had their positive prophobilinogen reaction following massive hemorrhage or transfusion.	
Genito-Urinary Tract	4
Includes one ureteral calculus, two benign prostatic hypertrophy, and one postpartum cystitis.	
Miscellaneous	4
A positive test was obtained in one patient with thrombophlebitis; in one with pancreatitis; in one with herniated nucleus pulposus;	

and in one with intestinal obstruction. This last patient is classified in the hemorrhagic group also. She had three surgical procedures for intestinal obstruction; the last one was preceded by a massive intra-abdominal hemorrhage on her twenty-first hospital day at which time she had her one positive reaction.

From this study we conclude that the Watson-Schwartz test when used alone is not a reliable simple office procedure, because questionable or false positive reactions do occur. Future and more complete investigations may reveal these false positive reactions to represent latent porphyria.

Acknowledgements

I wish to express my appreciation to Dr. James J. Gable for his encouragement and supervision during this survey, and to the entire Wesley Hospital laboratory staff for their splendid cooperation which made this survey possible.

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SOCIAL SECURITY SAYS: "People are taxed only once for Social Security."

In Other Words: The employer who must pay his share of the social security tax for each of his employees increases the price of his product or service to cover this additional cost of doing business. Everybody pays this increase as a hidden "sales tax."—*Prepared by the A.M.A.*

PRESIDENT'S LETTER



This month marks the start of another year.

Through the years custom has made January a time for Inventory and New Resolutions.

We, the members of the Oklahoma State Medical Association, have many valuable assets to list on our inventories. We are members of a profession that has for its purpose the relief and assistance of our fellowmen. We have the position in our communities to protect and advance both private and public health. We enjoy the confidence and council of our neighbors as no other profession. With this confidence and respect we have an opportunity for unlimited guidance toward better living conditions, better educational facilities and better morals.

So on the subject of Resolutions may I suggest that we re-resolve to serve our community to our fullest degree, putting service above self.

May we re-dedicate ourselves to the tenets of the most noble of all the professions.

John Black Burton, M.D.
President

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It is a single chemical substance, thoroughly tested and found particularly suited in the management of a wide range of conditions including psychotic, psychoneurotic and psychosomatic disturbances.

Dartal is useful whenever the physician wants to ameliorate psychic agitation, whether it is basic or secondary to a systemic condition.

In extensive clinical trial Dartal caused no dangerous toxic reactions. Drowsiness and dizziness were the principal side effects reported by non-psychotic patients, but in almost all instances these were mild and caused no problem.

Specifically, the usefulness of Dartal has been established in psychoneuroses with emotional hyperactivity, in diseases with strong psychic overtones such as ulcerative colitis, peptic ulcer and in certain frank and senile psychoses.

Usual Dosage • In psychoneuroses with anxiety and tension states *one 5 mg. tablet t.i.d.*
• In psychotic conditions *one 10 mg. tablet t.i.d.*

THIS MONTH'S COVER

Eye Bank Kickoff Success

The marriage of modern communications and medical science reaped unparalleled reward on Monday, December 2, by establishing the southwest's first eye bank within the brief span of 90 minutes. The television and radio presentations marked the end of more than two years of preparatory work by the Lions Clubs of Oklahoma.

Through their Sight Conservation Foundation, the Lions have raised funds for the establishment of the Eye Bank in Oklahoma City. It will be operated in connection with the University of Oklahoma Medical School where necessary laboratory facilities for the control of sterility are available. Prior to the statewide publicity, a special article by C. A. Royer, M.D., medical advisor to the group, appeared in the November issue of *The Journal*. Doctor Royer appears on the cover of this issue with Joe Jerkins, left, television program manager and Bill Parker, center, Lions Club member from Perry who instigated the legislation which permitted the bank's operation in Oklahoma.

Donor Response Unprecedented Governor First

More than seven hundred Oklahomans jammed the telephone facilities of stations WKY and WKY-TV with local and long distance calls during the first hour and one-half following an appeal for donors at the conclusion of a special half-hour telecast and simultaneous radio program. At the end of forty-eight hours, the total number of volunteers had grown to over 2,000 persons.

A volunteer group of Lions Club members aided station personnel in handling the heavy telephone response. Governor Raymond Gary was the first person to will his eyes to the program.

Entitled "A Gift of God," the telecast dramatically outlined the function of the eye bank by tracing the 150-mile journey of a donor's eyes to an operating room in Oklahoma City. The sequence was climaxed with films of an actual corneal transplant operation. Telling essentially the same story, the radio version substituted sound for visual effects.

The project was put into actual operation sooner than was anticipated. A patient in an Oklahoma City hospital, who bequeathed his eyes as a result of the program, died shortly afterward. Corneal transplants were thereby accomplished on a four-year-old girl and a 17-year-old boy less than 48 hours following the broadcast and telecast.

Written and produced by WKY Public Affairs Director Gene Allen, the telecast was directed by Mr. Jerkins. Bill Wheatley, WKY Radio program manager, wrote and produced the radio broadcast.

The Oklahoma City station is furnishing films of the telecast to other stations throughout the state for presentation at a later date. Lions Club members are distributing tape recordings of the radio broadcast.

Doctors Allege Atrocities In Republic of Cuba

The Secretary General of The World Medical Association announced that on November 7, 1957 he had mailed a letter to the President of the Republic of Cuba requesting authority for a committee of representatives of The World Medical Association to visit Cuba to carry out an official investigation of the allegations received by it that the doctors of Cuba are being persecuted and murdered while carrying out their humanitarian service to the sick and wounded.

When no response had been received by November 18th he cabled President Batista as follows: "Press reports your Secretary claims letter from The World Medical Association dated November 7th never received. Duplicate mailed today."

In commenting upon the content of the letter to President Batista, Louis H. Bauer, M.D., revealed that it contained the following:

The Allegations

"On October 24, a doctor was asked to attend an insurgent who had been wounded in the spine. The doctor called a taxicab to rush the patient to a hospital. On the way there an army patrol stopped the taxi, and removed the patient, the doctor and the taxi driver and killed them. The doctor's skull was crushed by a rifle butt and several shots fired into his body.

"On October 26, a doctor was dragged from his home, beaten to death and his body left at a morgue as 'unidentified'.

"Seriously ill patients have been released from hospitals and clinics upon government order and then found murdered a few hours later. The army and police prevent doctors from caring for the wounded and are subjected to physical and mental torture if they do so.

"Government agents supervise the doctor's consultation with his patient. Doctors have been attacked in their offices.

"Embassies are offering asylum to persecuted, ill-treated and tortured physicians, whose only crime is that they have rendered medical aid to persons opposed to the government."

Method of Investigation

"Because of the censorship of the press now being enforced in Cuba, it is difficult to obtain adequate information.

"Therefore, at its 11th General Assembly, the Secretary General of The World Medical Association was directed to endeavor to arrange for an officially recognized committee to visit Cuba with full authority to conduct an on-the-spot investigation. Mem-

bers of the proposed committee who are officials of The World Medical Association will be: Louis H. Bauer, M.D., Secretary General, New York City; E. S. Hamilton, M.D., Council Member, Kankakee, Illinois; Austin Smith, M.D., Executive Editor, *World Medical Journal*, Chicago, Illinois, and an attorney at law not yet selected."

The letter to President Batista requests that the committee: be authorized to investigate "alleged persecutions of the medical profession attending the sick and wounded and guarantee the rights of Cubans to testify before the committee without fear of reprisal."

The committee "would not be concerned in any way with the political aspects of the situation in Cuba."

The Humanitarian Principles Involved

The free nations of the world accept and support the principle that belligerents, whether international or national are entitled to medical care without discrimination or fear of reprisal.

The World Medical Association stands firmly behind this humanitarian principle as evidenced by its *Declaration of Geneva* and its *Regulations Governing Doctors During Armed Conflict*, from which the following are quoted:

"The health of my patient will be my first consideration.

"I will not permit considerations of religion, nationality, race, party politics, or social standing to intervene between me and my patient.

"Under all circumstances, every person, military or civilian, must receive promptly the care he needs without consideration of sex, race, nationality, religion, political affiliation or any other similar criterion.

"In emergencies, doctors and associated medical personnel are required to render immediate service to the best of their ability. No distinction shall be made between patients except those justified by medical urgency.

"The members of medical and auxiliary professions must be granted the protection needed to carry out their professional activities freely. The assistance necessary will be given to them in fulfilling their responsibilities. Free passage will be granted whenever their assistance is required. They will be afforded complete professional independence.

"The fulfillment of medical duties and responsibilities shall in no circumstance be considered an offense."

Asian Flu Down Says Doctor Burney

The nation "seems to be emerging" from the Asian influenza epidemic, the most wide-spread influenza epidemic in 40 years, Surgeon General Burney announced December 12 at a news conference. He said in recent weeks there has been a steady drop in the estimated number of cases, with the lowest point of 225,000 reached the last week in November.

However, Doctor Burney said further outbreaks are possible in January-March, and he renewed the appeal that more people avail themselves of the protection of Asian flu vaccine, particularly the chronically ill, the aged and pregnant women.

The surgeon general admitted that vaccine manufacturers were concerned with the growing oversupply in their stocks and in supply lines. Of better than 50,000,000 shots produced so far, more than 20,000,000 are on shelves or in transit. In view of this, Doctor Burney said that Public Health Service had not objected to production cutbacks. He explained that the "temporary drop in demand" justified a reduction in production, then added that "now there is practically no demand."

While Asian flu and other upper respiratory illnesses have resulted in a death rate increase of more than 50 per cent in 108 cities studied, Doctor Burney said he has "no reason to feel" that an increase in the virulence of Asian flu is to be expected even if some epidemics occur after the first of the year.

Institute in Psychiatry And Neurology To Be Held In Arkansas in February

The Tenth Annual Institute in Psychiatry and Neurology will be held at the Veterans Administration Hospital, North Little Rock, Arkansas on February 27 and 28, 1958.

This institute is being planned as a special occasion with the anniversary theme being stressed throughout. Almost all of those who participated in the First Annual Institute, which was held here on February 28 and March 1, 1949, will return for the occasion.

Philip Thorek, M.D., Chicago, Illinois, will present the principal address at the dinner session Thursday evening, February 27. On Wednesday, February 26, there will be workshops in clinical psychology, psychiatric social work, and psychiatric nursing.

Participants, other than Doctor Thorek, will include the following: Franz Alexander, M.D., Chicago, Illinois; Daniel Blain, M.D., Washington, D.C.; Walter Freeman, M.D., Los Altos, California; Edwin F. Gildea, M.D., St. Louis, Missouri; Jacob L. Mareno, M.D., and Mrs. Jacob L. Mareno, Beacon, New York; William Rottersman, M.D., Atlanta, Georgia; Henry Schwartz, St. Louis, Missouri; Harvey J. Tompkins, M.D., New York, New York; W. R. Alstadt, M.D., Little Rock, Arkansas; Mrs. Helen H. Perlman, Chicago, Illinois; Harry Solomon, M.D., President, American Psychiatric Association, Boston, Massachusetts; Fillmore H. Sanford, M.D., Austin, Texas.

PLAN TO ATTEND
OSMA ANNUAL
MEETING
MAY 5, 6, 7
OKLAHOMA CITY

1958 "Schering Award" Opens to Medical Students

The increasing importance of written medical communications is being stressed in the 1958 "Schering Award" competition which recently opened to medical students in the United States and Canada.

The "Schering Award" was originated by Schering Corporation in 1940. It is designed to encourage medical student interest and activity in this vital field of medical communications. The Award has proved effective in encouraging publication of clinical research developments, as many of the previous Award winners have later made significant written contributions to professional journals throughout the country.

This year, the Award recognizes the uniformly high caliber of the student papers which are submitted. In addition to first and second prizes of \$1,000 and \$500 in each of three categories, nine new cash awards will be made to the third, fourth and fifth best manuscripts in each field. A total of \$5,700 in cash prizes, plus many honorable mention prizes will be awarded for entries in the "1958 Schering Award."

Three important medical subjects have been selected as topics for this year's contest. These are: "The Mechanism and Current Concepts of Treatment of Nausea and Vomiting," "Current Trends in Corticosteroid Therapy in Pediatrics," and "The Uses of Tranquilizer Therapy in Office Practice."

The manuscripts submitted by students in recent years have been of an exceptionally high caliber. Many of them have been published in leading professional medical journals.

All medical students in accredited medical colleges in the United States and Canada are eligible to participate. Entry blanks and contest rules are available in all medical schools.

Polio Cases Off Almost Two-Thirds

Data collected by the PHS Communicable Disease Center on poliomyelitis shows 5,805 cases during this year's first 48 weeks, compared with 15,036 for a like period in 1956 and 28,842 in 1955.

Academy of General Practice Meets Next March in Dallas

The American Academy of General Practice Tenth Annual Scientific Assembly will be held March 24-27 in the Dallas Memorial Auditorium. More than 90 scientific and 300 technical exhibits will supplement the scientific lecture program given by 35 medical speakers.

Special activities are planned for the Academy's Tenth Anniversary Assembly. Tuesday, March 25, will be Dallas Southern Clinical Society Day. The DSCS meeting, held each March in Dallas, has this year been combined with the AAGP Assembly.

The Academy's policy-making Congress of Delegates will convene at 2 p.m., Saturday, March 22. All sessions of the Congress and many social functions will be held in the Statler Hilton Hotel.

Wednesday evening, March 26, following induction ceremonies for Academy President-elect Holland T. Jackson, M.D., Fort Worth, Texas, a reception and dance honoring Malcom E. Phelps, M.D., El Reno, Oklahoma, President of the Academy, will be held.

Re-Examination Of Veteran's Benefits

The board of directors of the Chamber of Commerce of the United States recently adopted a statement of policy about the problem of the increased number of veterans utilizing federal hospital facilities without having any service-connected disability. The number of such hospital patients (non-service-connected) far exceeds the number of those who are being treated for war-caused disabilities. The prospective cost of the program is enormous.

The board of directors of the U.S. Chamber is urging the termination of housing, educational, and hospital benefits for veterans with non-service connected disabilities with a view to reducing costs to veteran and non-veteran taxpayers, and placing veterans on the same basis as other citizens.

Governor Gary Wills His Eyes to the Blind

Governor Raymond Gary has willed his eyes to the Oklahoma Lions Sight Conservation Foundation, Inc.

The governor's donation preceded a word-of-mouth campaign which 5,500 state Lions club members launched an effort in December to get 10,000 to 15,000 persons to follow Gary's example and make it possible for hundreds of Oklahomans to see.

A second function of the drive will be to get \$50,000 to aid the Lions in the purchase of necessary equipment to work the program on a statewide basis and to help additional hopelessly blind Oklahomans to get Leader dogs.

"It is hoped the public will realize the importance and need of blind people and the part they can play in willing their eyes to the foundation when they have no further use for them," Ralph Bethel, president of the foundation and assistant executive director of the Blue Cross-Blue Shield, said. "Blind persons will be able to see and become useful citizens. This is the greatest step taken in the state to aid the visually handicapped," he added.

Headquarters for the foundation are located at the Oklahoma University Medical Center, Box 25, Oklahoma City. According to Bethel, the highway patrol will co-operate in taking willed eyes to Oklahoma physicians who are qualified to do corneal transplants.

"10 Million a Month To Social Security Disability"

Social Security Administration, taking stock of nearly six months operation of its disability payments program, estimates that about 131,000 persons are getting payments. By next July the total on rolls should be around 200,000. SSA notes that average payments to the disabled are \$72.24 a month. This compares with the national average of around \$65 for all other retired.

This is explained in part by the fact that

(a) the national average takes in many older persons who were not fully employed in previous years and (b) wages have gone up since the 1930s and early 1940s. The disabled covered, on the other hand, come more recently from the labor market.

On the basis of 200,000 on the rolls next year and assuming the average monthly payment is unchanged, the Disability Trust Fund will be paying out at the annual rate of nearly \$175 million. SSA estimates that the fund had \$525 million in it as of September. This is derived from the one-fourth of one per cent payroll tax increase that went into effect last January. At the time of the hearings on the disability proposal, HEW Secretary Folsom pointed out that the program for the first full year would cost close to \$200 million, rising to around \$900 million in 1980.

Post-Graduate Course In Fractures and Other Trauma To Be Held in Chicago

The second annual Post Graduate Course in Fractures and Other Trauma will be given by the Chicago Committee on Trauma of the American College of Surgeons, for four days from Wednesday, April 16 through Saturday, April 19, at the John B. Murphy Memorial Auditorium, in Chicago.

Visiting guest speakers will include Don H. O'Donoghue, M.D., Oklahoma City who will speak on "Ligamentous Injuries of the Knee." Other visiting guest speakers will be Walter Blount, M.D., Milwaukee; H. Relton McCarroll, M.D., St. Louis; and Joseph Boyes, M.D., Los Angeles.

All phases of trauma will be discussed by outstanding teachers from five medical schools, and chiefs of services of leading hospitals in the Chicago area as well as notable speakers from other parts of the country, according to Sam Banks, M.D., director of the course, and chairman of the Chicago Committee of Trauma.

RHONALD WHITENECK, M.D., formerly of Waynoka, has opened his offices in Woodward in the Medical Center Building.

American Medical Assn. Tells Why It Opposes Forand Bill

The American Medical Association announced recently that it will strongly oppose any federal legislation which would provide hospitalization and medical benefits under the Social Security program.

Such benefits under Social Security have already been proposed under terms of a bill, H. R. 9467, which was introduced by Rep. Aime Forand (D. R. I.) in the closing days of the recently adjourned session of the 85th Congress.

This legislation calls for the expansion of the Social Security Act into the medical and hospital care field. It has been referred to the House Ways and Means Committee, of which Mr. Forand is a member, and has strong backing of the AFL-CIO.

"This proposal is clearly 'socialized medicine' for a segment of the American people," said Dr. David B. Allman, Atlantic City, president of the American Medical Association. "The enactment of this legislation will permit the federal government to withdraw Social Security taxes on a compulsory basis from almost the entire working population and use those taxes to reimburse hospitals and physicians for services rendered to all persons eligible to receive old age and survivors benefits."

It is estimated that there are approximately 12 to 13 million persons in these categories.

"The American Medical Association has repeatedly opposed compulsory health insurance and is unequivocally opposed to this new version," Dr. Allman said.

He stated that the nine-member A.M.A. Board of Trustees had appointed a special Task Force to conduct an intensive research study of the health status of the population over the age of 65.

The chairman of this committee is Dr. George M. Fister, of Ogden, Utah. Besides Dr. Fisher, committee members are: Drs. Frank C. Coleman, Des Moines; Robert L. Novy, Detroit; George F. Gsell, Wichita, Kan., and James Duffy Hancock, Louisville, Ky.

The committee, which has already held two meetings, appointed Mr. Walter Polner,

Chicago, of the staff of the A.M. Bureau of Medical Economic Research, to conduct the research study. He will collect and collate data and opinions bearing on the following questions:

- (1) What is the extent of the problem?
- (2) What are the economic resources of the persons affected?
- (3) What are voluntary insurers doing and planning to meet existing needs?
- (4) To what extent does public assistance meet the need?
- (5) What is the relationship of the family to the aged persons in this group? Specifically, what are the resources and obligations of children and grandchildren to the aged?
- (6) What is the incidence of hospitalization and illness by age groups?
- (7) What is the relative status of voluntary measures for the care of the over-65 age group today as compared to the situation five or ten years ago?

The answers to these and other questions, Dr. Allman said, will be incorporated in the Association's testimony before Congress and will be used in A.M.A.'s educational efforts in behalf of the American people.

Dr. Fister Comments on A.M.A. Position

Commenting on the American Medical Association's stand, Dr. Fister said:

"The pressure for expansion of the Social Security System into the area of health and medical care benefits is formidable. Congressman Forand has expressed his gratitude to the AFL-CIO for assistance in framing the bill. Many members of Congress will inevitably support such legislation because of pressure from their constituents, particularly those over 65, who will be favorably impressed by the immediate benefits to be gained.

"On the other hand, the strength of the opposition to this precipitate and revolutionary proposal is also great. Allied with the American Medical Association in its opposition are the American Farm Bureau Federation, the National Retailers Federation, the United States Chamber of Commerce, the life insurance and health insurance industries, the National Association of Manufacturers and innumerable other organizations and individual citizens who are opposed to

government intervention into medical and other private affairs. These organizations and individuals will again indicate their strong opposition to the nationalization of hospitals and medicine, just as they did in 1950.

"State and county medical societies throughout the country are already working with state and local affiliated bodies of national organizations and other influential groups, whose policies are such that they would be expected to oppose socialized medicine.

"This is being done because the A.M.A. feels that an informed and aroused public opinion is the only real safeguard against such ill-advised legislation as the Forand bill."

A.M.A. Favors the Voluntary Way

Dr. Fister said today's Social Security proposal is "nothing more than the old national compulsory health insurance scheme in new dress, and the A.M.A. has always been opposed to compulsory health insurance.

"The A.M.A. has supported and promoted voluntary health insurance and other voluntary measures designed to promote individual and family economic security and responsibility. Progress in this direction has been phenomenal. Let's not take hasty action; there is no immediate problem. This picture is too complex. What we must do is study the problem carefully. Government intervention would be fatal."

Ob-Gyn Exams Scheduled

The next scheduled examination (Part II), oral and clinical for all American Board of Obstetrics and Gynecology candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 7 through 17, 1958. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as soon as possible.

Further information may be obtained by writing to Office of the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

Medicare Pays \$43 Million

The military's medicare program was one year old on December 7. To date, according to the Defense Department, the government has paid more than 300,000 physicians' bills amounting to \$22 million, and over 200,000 civilian hospital bills totaling \$21 million. While the combined total is considerably under the estimated \$76 million a year for the program, the Office of Dependent's Medical Care points out that there is a backlog of claims. In all likelihood, the President's new budget will again ask for around \$76 million.

Local figures indicate that Oklahoma is doing more than its share in the medicine program. From December 7, 1956 through November 30, 1957, 11,977 cases were processed by Blue Shield, the O.S.M.A.'s fiscal agent. Physicians were paid \$725,404.46 during the period, averaging \$60.57 per case.

From a national standpoint, nearly 40 per cent of medicare patients have been maternity cases. The Air Force leads the services with 41 per cent of eligible dependents participating; then the Navy, with 32 per cent; Army, 25 per cent, and Public Health Service, 2 per cent.

The Medicare program was enacted into law on June 7, 1956, and became effective six months later. Its objective is to create and maintain high morale in the uniformed services by providing an improved and uniform program of medical care for the dependents of service personnel.

Stillwater Hospital Announces New Service

David C. Foster, Administrator of the Stillwater Municipal Hospital, recently announced a new service offered in connection with the institution. Twenty beds at the hospital have been designated for the care of aged and convalescent patients.

Accommodations are available at \$150.00 per month in a semi-private room and \$165.00 per month in a private room. For bed or wheel chair patients, the rates are \$200.00 and \$215.00 respectively.

The service has been in operation since September 1, 1957.

Coming Meetings

HILLCREST MEDICAL CENTER 1653 East 12th St., Tulsa, Okla.

Lectures in Basic Science Given by Faculty Members of the University of Oklahoma School of Medicine.

Jan. 14—Sympathetic and Parasympathetic Drugs, P. W. Smith, Lecturer.

Jan. 28—Newer Brain Drugs and their Relation to the Hypothalamus, C. G. Gunn, Lecturer.

Feb. 11—New Sedatives: Narcotics and Narcotic Antagonists, A. A. Hellbaum, Lecturer.

Feb. 25—Common Metabolic Pathways, A. T. Bever, Lecturer.

Mar. 11—Anticoagulants, E. G. Larsen, Lecturer.

Mar. 25—Estrogens and androgens, A. T. Bever, Lecturer.

April 9—Adrenal Steroids; Aldosteronism, R. W. Payne, Lecturer.

April 30—Thyroid: Recent Advances in Diagnosis and Treatment, R. W. Payne, Lecturer.

May 13—Pulmonary Function, M. T. Latogola, Lecturer.

May 27—Basic GI Physiology, J. W. H. Smith, Lecturer.

June 10—Physiological Basis of Liver Function Tests, E. G. Larsen, Lecturer.

June 24—Alimentary Reserve: the malabsorption syndrome, J. W. H. Smith, Lecturer.

UNIVERSITY OF OKLAHOMA MEDICAL CENTER Postgraduate Instruction

BASIC ELECTROCARDIOGRAPHY—

March 3 through 7

This course consists of informal lecture presentations which assume no formal acquaintance with the subject. Laboratory exercises are carried out by the participants with individual help from the instructors. All working materials are furnished. Participants are expected to attend all lectures and laboratory periods and remains the entire time scheduled.

OPHTHALMOLOGY-OTOLARYNGOLOGY

SYMPOSIUM—March 6 and 7

Sponsored by Oklahoma City Society of Ophthalmology and Otolaryngology

Guest Lecturers:

Joseph H. Haas, M.D., Chicago, Illinois

Herman Semonov, M.D., Beverly Hills, California

OBSTETRICAL-GYNECOLOGICAL SYMPOSIUM—

March 8

Sponsored by the Oklahoma City Obstetrical and Gynecological Society. There will be two prominent guest lecturers.

PEDIATRIC SURGERY, RADIOLOGY, PATHOLOGY—March 14 and 15

Fourth Annual Combined Symposium

Sponsored by Oklahoma Association of Pathologists, Oklahoma Association of Radiologists, Oklahoma Chapter, American College of Surgeons

Guest Lecturers:

Robert E. Gross, M.D., Surgeon, Boston, Mass.

William L. Riger, M.D., Surgeon, Chicago, Ill.

Orvar Swenson, M.D., Surgeon, Boston, Mass.

John W. Hope, M.D., Radiologist, Philadelphia, Pa.

Also a prominent anesthesiologist and pathologist will be obtained for this program.

TRAUMA—April 11 and 12

Sponsored by the Regional Committee on Trauma of the American College of Surgeons

OKLAHOMA ASSOCIATION OF HOUSE STAFF

PHYSICIANS—May 23

Two guest lecturers and presentation of original papers by members of the various House Staffs will highlight this program. Participating hospitals are: Hillcrest Medical Center, Tulsa; St. John's, Tulsa; McBride, Mercy, St. Anthony, University, Veterans Administration and Wesley, Oklahoma City.

The above courses will be held at the University of Oklahoma School of Medicine. For further information write to the Office of Postgraduate Instruction, 801 NE 13th St., Oklahoma City, Oklahoma.

Postgraduate Division UNIVERSITY OF OKLAHOMA MEDICAL CENTER SHORT COURSE SERIES

Feb. 12—Surgery—Urology Symposium and C. B. Taylor Lectureship.

Mar. 12—Medicine—Pathogenesis and Treatment of Anemia.

April 9—Anesthesiology—Anesthesia for the Part-Time Anesthetist.

May 14—Pediatrics—Pediatric Allergy.

June 11—Surgery—Surgical Diagnosis and Problem Clinic.

The courses are designed so physicians may attend four hours of formal instruction in the above fields while spending only one-half day from their office. This series is approved for credit by the Oklahoma Academy of General Practice.

Time 3:30 to 8:30 p.m. the second Wednesday of each month.

Place: Room 120, Medical School Building.

Registration: \$3.50 per session; \$25 for the entire series includes dinner, Hospital Cafeteria. Mail registration to office of Postgraduate Instruction.

POSTGRADUATE CONFERENCE

The Temple Division of the University of Texas Postgraduate School of Medicine announces its Sixth Medical and Surgical Conference emphasizing **Cardiac, Pulmonary, and Vascular Diseases** to be held March 3, 4, 5, 1958. The program sponsored by Scott, Sherwood and Brindley Foundation, will be presented in Temple by members of the staff of Scott and White Clinic. Registration forms are available from the office of the Assistant Dean, University of Texas Postgraduate School of Medicine, The Temple Division, Temple, Texas.

POST GRADUATE COURSE ON DISEASES OF THE CHEST

The Council on Post-graduate Medical Education of the American College of Chest Physicians will sponsor the 11th Annual Post-graduate Course on Diseases of the Chest at the Warwick Hotel, Philadelphia, March 3-7, 1958.

The most recent advances in the diagnosis and treatment of chest diseases—medical and surgical—will be presented. The tuition fee is \$75 including round table luncheons.

Further information may be obtained by writing to the Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

UNIVERSITY OF KANSAS SCHOOL OF MEDICINE

University of Kansas Medical Center

Kansas City, Kansas

Pulmonary Disease Clinic

January 13-14, 1958

Clinical facilities of two major hospitals will be used in the presentation of the Pulmonary Disease Clinic. The Monday program is offered at the University of Kansas Medical Center, and the Tuesday sessions are scheduled at the Kansas City Veterans Administration Hospital.

Registration fee is \$30.00.

13th Annual Postgraduate Course in Gastroenterology

January 15-16, 1958

Patient material of representative problems will be presented and will constitute an important part of the program. The informal symposium and panel method of teaching will be utilized. The panels include surgeons as well as internists for comprehensive coverage of selected gastro-intestinal problems.

13th Annual Postgraduate Course in Surgery

January 20, 21, 22, and 23, 1958

The four day Course in Surgery has been designed to interest not only the general surgeon and the surgical specialist, but also the general practitioner who includes surgery in his practice. Treatment of Accidentally Incurred Injuries, Changing Concepts of Surgical Treatment, Surgical Management of Cancer, and Gastrointestinal Bleeding are general considerations for the program.

The registration fee is \$60.00.

Further information concerning details of the courses, fees, registration, etc., may be obtained by writing the Department of Kansas School of Medicine, Kansas City 12, Kansas.

GENERAL PRACTICE REVIEW

JANUARY 13-18, 1958

Denver, Colorado

An annual postgraduate course designed especially for the General Practitioner will be held January 13-18, 1958 at the University of Colorado Medical Center in Denver, Colorado.

Monday	Medicine
Tuesday	Pediatrics
Wednesday	Surgery
Thursday	Laboratory Medicine and Radiology
Friday	Obstetrics and Gynecology
Saturday	Trauma

Registration may be for the entire six days, or for any selected days. For further information write the office of Postgraduate Medical Education, The University of Colorado Medical Center, 4200 E. Ninth Avenue, Denver 20, Colorado.

First Oklahoma Colloquy on

ADVANCES IN MEDICINE

February 6, 7, and 8, 1958

The first Oklahoma Colloquy on Advances in Medicine will be held February 6, 7, and 8, 1958. The meeting will be devoted to problems on Fluid, Electrolyte and Nutritional Balance and is under joint sponsorship of the Department of Medicine, University of Oklahoma, Division of Postgraduate Education, University of Oklahoma and the Baxter Laboratories.

Eight nationally prominent investigators in this field will participate and present the results of original work from their laboratories. Among the guest speakers will be Dr. Curtis Artz, Associate Professor of Surgery, University of Mississippi; Dr. Ronald Cooke, Chairman, Department of Pediatrics, Johns Hopkins School of Medicine; and Dr. J. Russell Elkin-ton, Associate Professor of Medicine, University of Pennsylvania.

Organization News

A.M.A., M.S.S.A. Honor GP At Clinical Session

Cecil W. Clark, M.D., a 33-year old country physician, who was the hero of Hurricane Audrey when it roared through Louisiana last June 27 and killed more than 500, was presented two national awards during the recent American Medical Association Clinical Session at Philadelphia.

Both the A.M.A. and the Medical Service Society of America honored the Cameron, Louisiana physician by naming him the "General Practitioner of the Year." The gold medal award presented by the A.M.A. was designed especially to honor the general practitioner who has given exceptional service to his patients and to his community. It has been bestowed annually since 1948.

Detail Men Honor Clark

Noble S. Birkett, Oklahoma City, President of the Medical Service Society of America, added a second honor when he presented a plaque and gold key to Doctor Clark at special ceremonies held during a reception sponsored by the Florida Medical Association. The event took place in the Warwick Hotel, Tuesday night, December 3, before a representative group of 450 guests.

The Medical Service Society of America is the national organization for detail men. The group maintains a national office in Oklahoma City. In making the presentation, Mr. Birkett expressed the gratitude of the detail men for Doctor Clark's outstanding accomplishments.

Small Town's "Big Man"

Despite severe personal tragedy, Doctor Clark worked around the clock when the hurricane demolished the small town of



NOBLE S. BIRKETT, Oklahoma City is shown presenting a plaque and gold key to Cecil W. Clark, M.D., Cameron, Louisiana, at ceremonies honoring Doctor Clark in Philadelphia.

Cameron. Three of his five children were swept away by a mountainous tidal wave as their mother watched in horror. The physician had already left home to attend the hundreds of wounded. At the time of the disaster, he was the only physician in the area.

Much of his effort was expended during a period when he was under the impression that his wife and all of his children had been killed. It was not until 24 hours later that he learned that Mrs. Clark and two of the children had been rescued.

E. Vincent Askey, M.D., Speaker of the A.M.A. House of Delegates aptly summed up Doctor Clark's accomplishments with the following tribute: "In a way, the career of Doctor Clark is the story of many doctors who were called into their profession as if by some mystic sign and who served it with their whole souls. A study of Doctor Clark's background indicates clearly that from the first his practice had an air of dedication."



W. KELLY WEST, M.D., shown above making acceptance speech after being installed as President of the Southern Medical Association.

W. Kelly West, M.D., Installed As President of S.M.A.

W. Kelly West, M.D., Oklahoma City, was installed as President of the Southern Medical Association in Miami Beach, November 14. Doctor West's honor highlighted the largest meeting in the 51 year history of the association. There were 3,133 physicians registered for the meeting which was held November 11 through November 14.

Doctor West succeeded J. P. Culpepper, Jr., M.D., Hattiesburg, Mississippi as President. Other officers elected at this meeting were: President-Elect, Milford O. Rouse, M.D., Dallas, Texas; First Vice-President, Edwin H. Lawson, M.D., New Orleans, Louisiana; Second Vice-President, Donald F. Marion, M.D., Miami, Florida.

Elections by the Council included Council Chairman, Fount Richardson, M.D., Fayetteville, Arkansas; Council Vice-Chairman, Harry Lee Claud, M.D., Washington, D.C.; and Member of Board of Trustees, J. P. Culpepper, Jr., M.D., Hattiesburg, Mississippi.

Recipient of the Association's Research Medal was Joseph M. Hill, M.D., of Dallas,



CHARLES F. MOORE, M.D., center, receives a Certificate of Life Membership from Alfred T. Baker, M.D., left. W. A. Hyde, M.D., right is President of the Atoka, Bryan and Coal County Medical Society.

Charles F. Moore, M.D., Honored

Charles F. Moore, M.D., veteran Durant physician was recently presented a Certificate of Life Membership in the Oklahoma State Medical Association in recognition of outstanding professional service.

The presentation was made at a dinner meeting of the Atoka, Bryan and Coal County Medical Society at Hallie McKinney Hall, Southeastern State college.

L. A. Spann, M.D., Chosen President-Elect Of Tulsa Chapter, AAGP

Logan A. Spann, M.D., Tulsa physician, was chosen president-elect of the Tulsa Academy of General Practice at a meeting December 16, 1957 in Tulsa. Doctor Spann will succeed Charles E. Wilbanks, M.D., who will take office in 1958.

Other officers elected at the meeting are: Thomas W. Taylor, M.D., Vice-President; Harlan Thomas, M.D., secretary-treasurer and Wilmot B. Boone, M.D. and Earl L. Lusk, M.D., both directors.

Texas. Doctor Hill is the sixteenth winner of this outstanding award for scientific research which was established in 1912.

Kenneth M. Lynch, M.D., President and dean of the faculty of the Medical College of South Carolina, received the Association's Distinguished Service Award.

Eleven Speakers Scheduled For O.S.M.A. Annual Meeting

Plans for the Fifty-Second Annual Meeting of the Oklahoma State Medical Association are well under way it was announced recently by Allen E. Greer, M.D., Oklahoma City, General Chairman. This year's meeting will be held in the Zebra Room of the Municipal Auditorium in Oklahoma City, May 5, 6 and 7, 1958. Business sessions of the House of Delegates will take place on Sunday afternoon and evening, May 4, in the Hall of Mirrors of the Municipal Auditorium.

Outstanding Guest Speakers

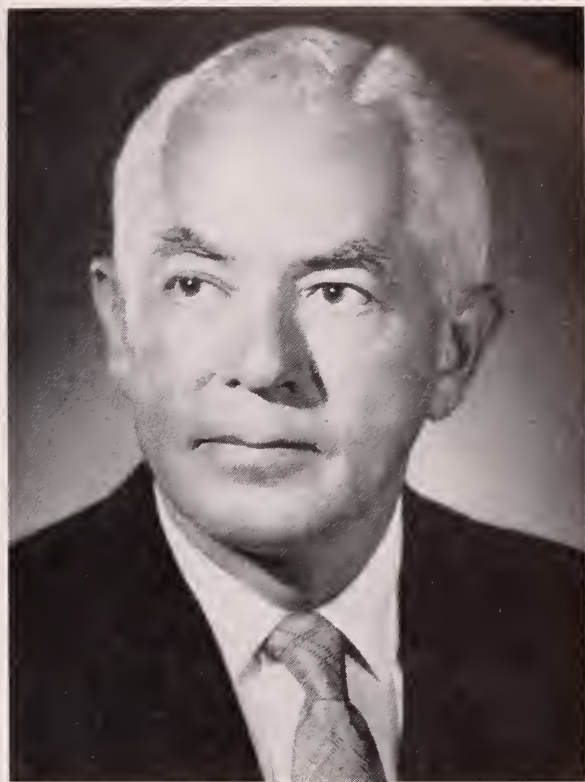
Hugh A. Stout, M.D., Oklahoma City, Program Committee Chairman, has nearly completed the roster of out-of-state guest speakers, with eleven confirmed speakers including Gunnar Gundersen, M.D., La-Crosse, Wisconsin, President-Elect of the American Medical Association. Doctor Gundersen has recently returned from a tour of the medical facilities and educational systems of the U. S. S. R.

Physicians attending the scientific sessions will hear presentations from outstanding medical authorities such as Charles W. Mayo, M.D., Rochester, Minnesota. Doctor Mayo will deliver two talks entitled "Low Anterior Resection For Carcinoma of the Upper Portion of Rectum, the Rictosigmoid and Lower Portion of Sigmoid" and "Diverticulitis and Diverticulosis."

Other confirmed speakers are: C. Knight Aldrich, M.D., University of Chicago, Psychiatry; Jacob Arnold Bargen, M.D., Mayo Clinic, Internal Medicine; Charles H. Brown, M.D., Cleveland Clinic, Gastroenterology; John H. Githens, M.D., University of Colorado, Pediatrics; Kenneth C. Johnston, M.D., Chicago, Thoracic Surgery; Edwin L. Prien, M.D., Brookline, Massachusetts, Urology; John E. Hobbs, M.D., Washington University, St. Louis, Obstetrics and Gynecology; Edgar J. Poth, M.D., University of Texas Medical Branch, Galveston, Surgery; Alvin J. Ingram, M.D., Memphis, Tennessee, Orthopedic Surgery.

Exhibitors Respond

Exhibitors are responding well to the in-



CHARLES W. MAYO, M.D., above, is one of eleven speakers who have accepted invitations to speak at the Fifty-Second Annual Meeting of the O.S.M.A.

vitations of S. Fulton Tompkins, M.D., Chairman of the Scientific and Educational Exhibits Committee and Ancel Earp, Jr., M.D., Chairman of the Technical Exhibits Committee. Doctor Tompkins plans to have about 40 exhibits in his area and Doctor Earp has already filled 40 of the 61 spaces available.

As in the past, the President's Inaugural Dinner Dance will highlight the social calendar for the meeting. This event will take place Tuesday evening, May 6, in the Persian Room of the Skirvin Tower Hotel. Negotiations are now in progress with several nationally known dance orchestras.

In addition, Doctor Greer said plans were being formulated for such related events as the Annual Golf Tournament, the Past President's Breakfast, the Old Timers Breakfast and the increasingly popular Physician's Hobby Show which is sponsored by the Woman's Auxiliary.



'Faculty House' Acquired By The Association of the University Of Oklahoma Medical Faculty

For many years faculty members and alumni of the School of Medicine at the University of Oklahoma have needed an exclusive and congenial place to conduct professional and social meetings.

Faculty House, a splendid building recently acquired by the Association of the University of Oklahoma Medical Faculty, will fill this need. Located at Northeast 14th Street and Lincoln Boulevard in Oklahoma City, the Faculty House is two blocks from the campus of the Medical School.

"The house is tastefully furnished and large enough to afford plenty of space for staff meetings, doctors' clubs and social groups," said Leonard P. Eliel, M.D., president of the Association. "Quality meals at reasonable prices will be served regularly at lunch and dinner and up to 100 guests can be accommodated. There is also a snack bar in the basement to provide fast luncheon service for members and guests.

"In addition to a music and reading room, there is a large living room ideal for teas, bridge and other social events. We also have comfortable overnight accommodations available for as many as ten guests. We anticipate the Faculty House to be used extensively by faculty members and physicians, as well as their families, for professional, social and family activities," Doctor Eliel said.

"The Association feels that the Faculty House, in providing more opportunities for contacts and exchange of ideas between scientists and physicians, will play a vital role in making our medical center one of the finest in the nation," Doctor Eliel added.

Currently, the Association is conducting a membership drive, following a series of open houses to acquaint prospective members with facilities and benefits at Faculty House. All members of the faculty are automatically eligible for membership and non-faculty members may apply when proposed by two members.

"The Association of the University of Oklahoma Medical Faculty is a non-profit corporation," said Doctor Eliel. "It was formed to acquire the house from its former owner, Claude L. Reeves, M.D. Dues and fees have been set at reasonable levels. Interest-bearing debentures will also be offered for sale at the time memberships are established. Through the sale of interest-bearing bonds the Association plans to purchase the house. In effect, this will give holders of the debentures a mortgage on the Faculty House."

Initiation fees and dues are considered tax deductible by the Association's attorney, reported Doctor Eliel.

Officers of the Association are: Doctor Eliel, president; Forest M. Lingenfelter, M.D., first vice-president; Richard Carpenter, M.D., second vice-president; John Schilling, M.D., secretary; James F. Hammarsten, M.D., treasurer.

DALE W. CURRY, M.D., formerly of Enid, recently moved to Odessa, Texas.

JACK HANKEY FOERTSCH, M.D., Chickasha, JOHN WOODROW DEVORE, M.D., Oklahoma City and WALTER SCOTT HENDREN, JR., M.D., Oklahoma City were named Associates of the American College of Physicians at the November 9-10, 1957, meeting of the Board of Regents at the College headquarters in Philadelphia.

Thomas C. Points, M.D., Speaks At North East U.S. Regional Conference

Thomas C. Points, M.D., was one of the speakers at the North East United States Regional Conference on Perinatal Mortality and Morbidity Problems, held December 2, 1957, at the Bellevue-Stratford Hotel, Philadelphia, Pennsylvania.

Doctor Points presented a proposed project for the state of Oklahoma on "A Clinical Study of Factors Affecting Perinatal Deaths in Various Communities" as an introduction to the questions of Organization and Operation of Perinatal Mortality and Morbidity Studies.

This was the first of several regional conferences to be held in various areas of the United States by the Maternal and Child Care Committee of the A.M.A. There has been a marked drop in maternal deaths during the last 20 years, but an insignificant drop in fetal and newborn deaths before, during and soon after delivery. These conferences are for discussions of ways and means to aid in accomplishing a reduction of these deaths.

To date, hospitals, cities, counties and states are instituting perinatal death conferences and surveys to stimulate interest in this problem as well as an educational and research media. The local, and state medical societies in conjunction with the medical schools and state health departments in various areas are conducting such conferences and surveys.

In the State of Oklahoma a program has been in the planning stages with a few selected pilot hospitals. This will be extended to give statewide coverage as interest and facilities develop in order to have a pregnancy terminate with a live healthy baby and a mother who is physically and mentally able to care for it.

The Lincoln County Medical Society was the first County Society to have accomplished 100 per cent payment of 1958 State and A.M.A. dues.



Three Physicians Honored

Three physicians were recently honored when they were presented Fifty Year Pins and Life Membership Certificates. Shown, left to right, are L. G. Blackmer, M.D., Hooker, R. B. Hayes, M.D., Guymon, and Nathan Boggs, M.D., Goodwell, receiving Fifty Year Pins from J. T. Duer, M. D., Woodward. Doctor Boggs and Doctor Blackmer also received Life Membership Certificates in the Oklahoma State Medical Association. Doctor Hayes had received a Life Membership Certificate in 1949.

Cordell Memorial Hospital Dedicated

Following dedication services, the Cordell Memorial Hospital was formally opened on December 1, 1957. The hospital, built as a civic and municipal enterprise, will be operated by the Baptist General Convention of Oklahoma on a lease basis.

In July 1955, residents of Cordell voted a \$175,000 bond issue for hospital construction purposes. A drive for funds was held in September 1955 and since that time more than \$100,000 has been secured in donations of land, money and equipment to aid in the construction of one of the most modern hospitals in Oklahoma.

L. G. Livingston, M.D., is Chief of the hospital medical staff. Other members include: S. Tindall Jones, M.D., assistant Chief of Staff, Roy W. Anderson, M.D., A. H. Bungardt, M.D., A. S. Neal, M.D., Martin Hale, M.D., R. R. Hannas, Jr., M.D., A. E. Stowers, M.D., Richard F. Shriner, Jr., M.D., Wilson Mahone, M.D., Lonnie G. Redus, M.D., Floyd Simon, M.D., Ralph Simon, M.D., Ross Deputy, M.D., W. C. Tisdal, M.D., and Paul Lingenfelter, M.D.



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- Convenience—the low dose of 0.5 Gm. (1 tablet) per day offers optimum convenience and acceptance to patients

1. Nichols, R. L. and Finland, M.: *J. Clin. Med.* 49:410, 1957.

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NEW DOSAGE. The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive $\frac{1}{4}$ of the adult dosage. It is recommended that these dosages not be exceeded.

TABLETS: Each tablet contains 0.5 Gm. ($7\frac{1}{2}$ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

SYRUP: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

APPLICATION FOR SPACE

SCIENTIFIC AND EDUCATIONAL EXHIBIT SECTION

52nd ANNUAL MEETING ★ OKLAHOMA STATE MEDICAL ASSOCIATION
MUNICIPAL AUDITORIUM ★ OKLAHOMA CITY ★ MAY 5, 6, 7, 1958
(Please type or print)

Name of organization or individual requesting space: _____

Please describe your exhibit (75 words maximum - to be used in official program:)

Amount of space required (indicate width in multiples of eight feet): _____ feet.
(All exhibit spaces will be 6 feet deep.)

If you have ever exhibited at an Annual Meeting, give most recent date: _____

Date of application: _____

Applications should be mailed to the Scientific and Educational Exhibits Committee, Oklahoma State Medical Association, Box 9696 Shartel Station, Oklahoma City.

Closing date for filing applications: March 1, 1958. Space is limited and not all applications can be accepted. There will be no charge for space, but each exhibitor is responsible for installation of own exhibit. The Oklahoma State Medical Association assumes no liability for the safety of exhibits. Exhibits will be installed on Sunday, May 4, 1958 and must be removed between 1:00 p.m. and 5:00 p.m. on Wednesday, May 7, 1958.

Cavalcade of Health Gives \$700 To Research

The Oklahoma Medical Research Foundation received an unexpected Christmas present when Henry H. Turner, M.D., promoter of last spring's Cavalcade of Health show for the Oklahoma State Medical Association and John F. Burton, M.D., President of the Association, presented Foundation Director Hugh Payne with a check for \$700.00.

The check represents surplus funds of a public service endeavor which played a vital role at Oklahoma's Semi-Centennial Exposition and turned out to be one of the most outstanding attractions on the fairgrounds. Brain child of the Medical Association, the Cavalcade of Health was a non-commercial venture featuring a variety of exhibits on health problems. More than 50,000 viewers were provided with authentic health information exhibits, the contents of which were approved by physicians. Funds for managerial expense were raised from participating organizations, with the Medical

Association agreeing to refund proportionate shares of any surplus.

As it turned out, a refund was in order, but several exhibitors voluntarily asked that their share be turned over to the Research Foundation. Among those who refused their refunds in favor of the Foundation were Blue Cross-Blue Shield, Mid-State Dairy Foundation, the Oklahoma County Medical Society and Smith, Kline and French, a pharmaceutical manufacturer.

In making the presentation to Mr. Payne, Doctor Turner said "This check represents more than a monetary contribution to medical research; it exemplifies the splendid co-operative spirit that exists between the various members of Oklahoma's health team. Our Cavalcade of Health was a fitting tribute to the progressive past of our State's health program and this check represents tangible proof of a joint, determined effort toward better health for all citizens."

AN INVITATION TO EXHIBIT OSMA ANNUAL MEETING

Do you have an idea which you would like to present to other physicians in Oklahoma? An unusual case? A series of cases? A new device or technique? An organization problem or plan of action? A piece of experimental work?

If so, consider working it up as a SCIENTIFIC EXHIBIT to be shown at the annual meeting of the Oklahoma State Medical Association in May, 1958. Applications should be submitted on form reproduced on the opposite page.

Start now collecting your material and planning your exhibit. Since space is limited, you are encouraged to submit your application early. Your exhibit need not be large. It should be stimulating. Subjects which have special visual interest are particularly suitable.

MAY 5, 6, 7

ZEBRA ROOM

MUNICIPAL AUDITORIUM

OKLAHOMA CITY

Summary of AMA Actions At Clinical Meeting

Fluoridation of public water supplies, free choice of physician, the Heller Report on organization of the American Medical Association, the Forand Bill providing hospital and surgical benefits for Social Security beneficiaries, guides for occupational health programs covering hospital employees, distribution of Asian Influenza vaccine and guides for the medical rating of physical impairment were among the variety of subjects acted upon by the House of Delegates at the American Medical Association's Eleventh Clinical Meeting held Dec. 3-6 in Philadelphia.

Dr. Cecil W. Clark of Cameron, Louisiana, was named 1957 General Practitioner of the Year after his selection by a special committee of the Board of Trustees for outstanding community service. Dr. Clark, 33-year-old country doctor who was a medical hero during Hurricane Audrey last June, was present at the meeting to receive the gold medal which goes with the annual award.

Speaking at the opening session on Tuesday, Dr. David B. Allman of Atlantic City, A.M.A. President, called for "more freedom, not less, in America and in the medical profession." Doctor Allman urged the delegates to embark on local action campaigns to enlist full community support in opposition to the Forand Bill, a pending Congressional proposal which would provide hospital and surgical benefits for persons who are receiving or are eligible for Social Security retirement and survivorship payments. The Forand Bill, he said, is "cut from the same cloth" as national compulsory health insurance and "emanates from the same minds."

Total registration at the end of the third day of the meeting, with half a day still to go, had reached 5,375, including 2,562 physician members.

The official Oklahoma delegation consisted of delegates Wilkie D. Hoover, M.D., and Malcom E. Phelps, M.D.; alternates R. Q. Goodwin, M.D., and E. H. Shuller, M.D. From Tulsa, W. A. Showman, M.D., rep-

resented the Dermatology Section as a delegate. Also attending from Oklahoma were John F. Burton, M.D., President of the O.S.M.A. and member of the A.M.A. Council on Medical Service; G. R. Russell, M.D., President of the Tulsa County Medical Society; Walter E. Brown, M.D., Chairman of O.S.M.A. Medicare Committee; Marshall O. Hart, M.D.; Mr. Dick Graham and Mr. Don Blair of the O.S.M.A. office and Mr. Jack Spears of the Tulsa County Medical Society.

Flouridation of Water

In settling the most controversial issue at the Philadelphia meeting, the House of Delegates approved a joint report of the Council on Drugs and the Council on Foods and Nutrition which endorsed the fluoridation of public water supplies as a safe and practical method of reducing the incidence of dental caries during childhood. The 27-page report on the study which was directed by the House at the Seattle Clinical Meeting one year ago contained these conclusions:

"1. Fluoridation of public water supplies so as to provide the approximate equivalent of 1 ppm of fluorine in drinking water has been established as a method for reducing dental caries in children up to 10 years of age. In localities with warm climates, or where for other reasons the ingestion of water or other sources of considerable fluorine content is high, a lower concentration of fluoride is advisable. On the basis of the available evidence, it appears that this method decreases the incidence of caries during childhood. The evidence from Colorado Springs indicates as well a reduction in the rate of dental caries up to at least 44 years of age.

"2. No evidence has been found since the 1951 statement by the Councils to prove that continuous ingestion of water containing the equivalent of approximately 1 ppm of fluorine for long periods by large segments of health. Mottling of the tooth enamel (dental the population is harmful to the general fluorosis) associated with this level of fluoridation is minimal. The importance of this mottling is outweighed by the caries-inhibiting effect of the fluoride.

"3. Fluoridation of public water supplies

should be regarded as a prophylactic measure for reducing tooth decay at the community level and is applicable where the water supply contains less than the equivalent of 1 ppm of fluorine."

Free Choice of Physician

Acting on the issue of free choice in relation to contract practice, the House passed a resolution which reaffirmed approval of previous interpretations of the Principles of Medical Ethics by the Association's Judicial Council and directed that they be called to the attention of all constituent associations and component societies. One Council opinion, issued in 1927 and reaffirmed in Philadelphia, stated that the contract practice of medicine would be determined to be unethical if "a reasonable degree of free choice of physician is denied those cared for in a community where other competent physicians are readily available." The resolution also cited a Council opinion, published in the October 19, 1957, issue of *The Journal of the A.M.A.*, which stated that the basic ethical concepts in both the 1955 and 1957 editions of the Principles of Medical Ethics are identical in spite of changes in format and wording. This opinion added that "no opinion or report of the Council interpreting these basic principles which were in effect at the time of the revision has been rescinded by the adoption of the 1957 principles."

The 1927 Council report also pointed out that "there are many conditions under which contract practice is not only legitimate and ethical, but in fact the only way in which competent medical service can be provided." Judgment of whether or not a contract is ethical, the report said, must be based on the form and terms of the contract as well as the circumstances under which it is made.

In another action related to the issue of free choice, the House adopted a resolution condemning the current attitude and method of operation of the United Mine Workers of America Welfare and Retirement Fund "as tending to lower the quality and availability of medical and hospital care to its beneficiaries." The resolution also called

for a broad educational program to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the "Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund" which were adopted by the House last June.

The Heller Report

Acting on the report of the Committee to Study the Heller Report on Organization of the American Medical Association, the House reached the following decisions on ten specific recommendations:

1. The office of Vice-President will be continued as an elective office.
2. The offices of Secretary and Treasurer will be combined into one office to be known as Secretary-Treasurer, and that officer will be selected by the Board of Trustees from one of its number.
3. The duties of the Secretary-Treasurer will be separated from those of the Executive Vice-President.
4. The office of General Manager will be discontinued, and the new office of Executive Vice-President will be established. The latter, appointed by the Board of Trustees, will be the chief staff executive of the Association.
5. The Council on Medical Education and Hospitals and the Council on Medical Service will continue as standing committees of the House of Delegates, but their administrative direction will be vested in the Executive Vice-President.
6. The voting members of the Board of Trustees will be limited to eleven—the nine elected Trustees, the President and the President-Elect. The Vice-President and the Speaker and Vice-Speaker of the House of Delegates will attend all Board meetings, including executive sessions, with the right of discussion but without the right to vote.
7. The House disapproved the proposal to elect the Trustees from each of nine physician-population regions.

8. The office of Assistant Secretary will be discontinued, and a new office of Assistant Executive Vice-President will be established.

9. The Committee on Federal Medical Services will be retained as a committee of the Council on Medical Service and will not become a part of the Council on National defense.

10. The Speaker of the House will appoint a joint and continuing committee of six members, three from the Board of Trustees and three from the House, to redefine the central concept of A.M.A. objectives and basic programs, consider the placing of greater emphasis on scientific activities, take the lead in creating more cohesion among national medical societies and study socio-economic problems.

The accepted recommendations were referred to the Council on Constitution and By-laws with a request to draft appropriate amendments for consideration by the House at the 1958 annual meeting in San Francisco.

The Forand Bill

The House condemned the Forand Bill as undesirable legislation, approved the firm position taken in opposition to it and expressed satisfaction that the Board of Trustees has appointed a special task force which is taking action to defeat the bill. In a related action, giving strong approval to Doctor Allman's address at the opening session, the House adopted a statement which said:

"It is particularly timely that our President has so forcefully sounded the clarion call to the entire profession for emergency action. With complete unity, definition and singleness of purpose, closing of ranks with all age groups and elements of our organization we must at this time stand and be counted. Thus we can exert the physician's influence in every possible direction against invasion of our basic American liberties in the form of proposed legislation alleged to compulsory insure one segment of the population against health hazards at the expense of all."

Health Programs for Hospital Employees

A set of "Guiding Principles for an Occupational Health Program in a Hospital Employee Group" was approved by the House. The guides were developed by a joint committee of the American Medical Association and the American Hospital Association and already has been formally approved by the A.H.A. They include these statements:

"Employees in hospitals are entitled to the same benefits in health maintenance and protection as are industrial employees. Therefore, programs of health services in hospitals should use the techniques of preventive medicine which have been found by experience in industry to approach constructively the health requirements of employees.

"It is essential that employee health programs in hospitals, as in industry, be established as separate functions with independent facilities and personnel. The fact that hospitals are engaged in the care of the sick as their primary function does not alter the necessary organizational plan for an effective occupational health program."

Asian Influenza Vaccine

The House considered three resolutions dealing with the Asian influenza immunization program and then adopted a substitute resolution calling attention to "certain inadequacies and confusions in the distribution of vaccines" and directing the Board of Trustees to seek conferences through existing committees "with a view to establishing a code of practices regulating the future distribution of important therapeutic products, so that the best interest of all the people may be served." The resolution pointed out that the American Medical Association already has a joint committee with the American Pharmaceutical Association and the National Association of Retail Druggists, in addition to a liaison committee with the Drug Manufacturers Association.

Medical Rating of Physical Impairment

The House accepted a 115-page "Guide to the Evaluation of Permanent Impairment of the Extremities and Back" which was de-

veloped by the Committee on Medical Rating of Physical Impairment as the first in a projected series of guides. The delegates commended the committee for doing "a superb job on this difficult subject" and expressed pleasure that the guides will be published in *The Journal of the A.M.A.* The guides are expected to be of particular help to physicians in determining impairment under the new disability benefits program of the Social Security Act.

Miscellaneous Actions

Among a wide variety of other actions, the House also:

Directed that a new committee be established in the Council on Industrial Health to study *neurological disorders in industry*;

Noted with approval the establishment of the American Medical Research Foundation, which will initiate and encourage necessary *medical research* and correlate and disseminate the results of studies already under way;

Decided that informational materials which are sent to A.M.A. delegates should also be sent to all *alternate delegates*;

Affirmed that it is within the limits of ethical propriety for physicians to join together as partnerships, associations or other *lawful groups* provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians;

Instructed that the appropriate committee or council should engage in conferences with *third parties* to develop general principles and policies which may be applied to the relationship between third parties and members of the medical profession;

Urged state medical society committees on aging and insurance to make continuing studies of *pre-retirement financing of health insurance* for retired persons;

Endorsed a suggestion that the Committee on Federal Medical Services sponsor a national conference on *veterans' medical care* during 1958;

Asked the Board of Trustees to study the feasibility of having the Association finance a thorough investigation of the *Social Se-*

curity system by a qualified private agency;

Suggested that physicians and their friends make a vigorous effort to obtain Congressional enactment of the *Jenkins-Keogh Bills*;

Approved the "Suggested Guides of Relationships Between Medical Societies and Voluntary Health Agencies";

Strongly recommended that a completely adequate and competent medical department be established in the *Civil Aeronautics Administration* directly responsible to the CAA Administrator, and

Congratulated the General Electric Company for its medical television presentations on the subject of *quackery*.

Opening Session

At the Tuesday opening session Rear Admiral B. W. Hogan, Surgeon General of the U. S. Navy, presented the Navy Meritorious Public Service Citation to Dr. Dwight H. Murray of Napa, Calif., immediate past president of the Association. Contributions to the American Medical Education Foundation, for financial aid to the nation's medical schools, were presented by four state medical societies: California, \$143,043.25; Utah \$10,390; New Jersey, \$10,000, and Arizona, \$8,040. The Interstate Post Graduate Medical Association of North America gave \$1,000, and the Illinois State Medical Society announced that it was adding \$10,000 to the \$170,450 presented at the New York meeting last June.

Two New A.M.A. Exhibits for '58

Accidental poisoning of children and weight reduction are the themes of two new exhibits the A.M.A. is offering to medical societies early in 1958.

"You Can Reduce" stresses the importance of using will power in the selection of foods. The exhibit illustrates the basic foods that should be eaten every day.

"Poisoning of Children in the Home" pinpoints eight leading offenders, such as aspirin, kerosene, old medicines and household chemicals. Medical society bookings may be arranged through the bureau of exhibits after January 1.

Auxiliary News

Pottawatomie County Auxiliary The Nation's First

The Oklahoma claim to the first Woman's Auxiliary in the United States is now positively substantiated by the following report prepared by an Auxiliary member:

"Stranger than fiction might well be applied to the finding of more irrefutable evidence that the first Woman's Auxiliary to a County Medical Society to be founded in the United States was organized April 1907 at Shawnee, Oklahoma and that on May 15, 1907 a state auxiliary was also formed at Shawnee. Granted, the state auxiliary lasted only eight years, but the Pottawatomie County Auxiliary is still active and meeting regularly and can rightfully claim the honor of being the very first Woman's Auxiliary to a County Medical Society in the United States.

"Recently this additional evidence was discovered in a rather round about but most interesting manner.

"In Huntsville, Alabama there lives Ambrose T. Grayson, M.D. Doctor Grayson has been living in Huntsville and practicing there since 1909. Next door to him a boy named John Chenault grew up and eventually became a physician in Decatur, Alabama. When his wife Belle, a very active auxiliary member, was appointed as the Program Chairman of the National Auxiliary, Doctor Grayson wrote to her to congratulate her on her appointment and remarked that he had a record of the very first auxiliary ever to be organized in the country. The record consisted of a small book in which his wife, as the first secretary of the Pottawatomie County Auxiliary, had kept the minutes of the first meetings.

"Mrs. Chenault was so interested that she asked Doctor Grayson to send her the book

so that she might copy the minutes. Doctor Grayson sent the book and though the ink was badly faded and the writing difficult to decipher in places, Mrs. Chenault made a copy of them. In 1954 Mrs. Chenault recalls that she mentioned the incident to some one from Oklahoma but couldn't remember to whom. Apparently the significance of the matter did not occur to this person and the whole thing was forgotten.

"About a year ago Mrs. Chenault and Mrs. Paul Craig, now President of the National Auxiliary, were discussing leisure time activities when Mrs. Craig mentioned that she was very much interested in facts and objects of historical significance. Mrs. Chenault related the story of the little book with the original minutes, completely unaware that Oklahoma had very little tangible evidence for its claim to being the first auxiliary.

"When Mrs. Craig accepted an invitation to come to Oklahoma for the state meeting last May, she asked Mrs. Chenault to send her a copy of the minutes so that she might use it in her talk on 'Attic Treasures.'

"When Mrs. Craig and I met in Philadelphia the week end before our state meeting, she showed me the copy of the minutes. She had no idea that Oklahoma had no knowledge of the existence of these minutes and was as excited as I was to have had a part in bringing this evidence to Oklahoma.

"At the past President's Breakfast, the minutes were read and laughed over and cried over a bit too, for present at the breakfast were Mrs. Bradford, the first county and state President, and Mrs. Hughes and Mrs. Roland, Charter Members.

"After the state meeting, I wrote to Doctor Grayson thanking him for having so carefully preserved the little book and asked

him whether I might borrow it to have photostatic copies made of the pages so that we might at least have that evidence on record. Doctor Grayson sent the book immediately saying that he was very anxious that it be properly preserved in some library or museum interested in historical items. He added some very interesting reminiscences of his and Mrs. Grayson's residency in Shawnee and told of some of the events that led to the organization of the auxiliary as he recalled them.

"It seems that Joseph Trigg, M.D., formerly of Shawnee, later of St. Louis, Missouri became interested when Oklahoma's claim was questioned at the time that Mrs. Willard Bartlett of St. Louis compiled the first history of the National Auxiliary in 1934. He conferred with Mrs. Grayson at that time to get some facts corroborated but apparently nothing further was done about it. Doctor Trigg lived in Shawnee at the time that the auxiliary was organized and remembered the incident very clearly.

"It was at this time that Mrs. Byrum of Shawnee collected all the available evidence that eventually established our claim as authentic in the history of the Auxiliary. No one in Shawnee was apparently aware that Mrs. Grayson had taken the first minutes in a little copy book and had later probably transferred them to a more permanent book that was destroyed in the fire.

"Realizing that this bit of evidence was extremely important to the Oklahoma Auxiliary and for sentimental reasons as well, Doctor Grayson and his son and daughter have graciously presented this book to me asking that I be responsible for seeing to it that it is carefully preserved in the archives of the auxiliary. This will certainly be done and we are very grateful to Doctor Grayson and his family for their generous gift to us."

Mrs. Grayson's Minutes of some of the first meetings appear below:

The Women's Auxiliary met with Mrs. Bradford May 13th, 1907, to make final arrangements for the Medical Association.

It was decided that the wives of all regu-

lar physicians be invited to attend the reception and go on the trolley ride also.

Mrs. Scott reported that Mrs. Douglas could not serve on the committee to be at headquarters Tuesday morning, May 14th. Mrs. Scott then suggested that all who could stay at the hall all Tuesday morning and others come as they could.

Mrs. Ellis then reported on the refreshment committee and it was agreed that we have punch in addition to cream and cake for the reception.

A committee consisting of Mesdames Cannon, Shive, Trigg, and Fairington was appointed to assist Mrs. Roland in decorating for the reception.

Mesdames Shive, Trigg, and Fairington were put in committee to arrange for the music.

Mrs. Bradford then appointed Mesdames Rowland, Cannon, and Ellis as the committee to write a letter of condolence to Doctor Anderson and little daughter.

Mrs. Bradford also reported that she ordered a floral design costing \$7.20 sent to Doctor Anderson from the Society.

List of those who have paid for flowers, Mesdames Scott, Trigg, Bradford, McGee, Fairington, Sanders, Sanborn, Rowland, Rice, Cannon, Ellis, Wiley, Shive, Handerson, Grayson, and Douglas.

All business being transacted, we adjourned to meet with Mrs. Rowland, May 16th, at 9:30 A.M.

Mrs. A. T. Grayson, Secretary

There was a business meeting at Mrs. Rowland's May 16th at 9:30 A.M. for the purpose of summing up our expenditures during the Medical Association here.

The amount to be paid by the Chamber of Commerce for the Society was \$27.50.

Music	\$10.00
Punch	5.00
Cream	4.50
Cake	7.50
Chairs	.50
	<hr/>
	27.50

All creditors were notified to present their bills to Doctor Rice.

Each member of the Society was assessed ten cents as a tip to the porter at the Elks Hall. List of those who have paid this amount, Mesdames McGee, Bradford, Shive, Fairington, Sanborn, Rice, Rowland, Cannon, Ellis, Wiley, Handerson, and Grayson.

Those who bought cream after the reception

Mrs. Rowland	1 brick	.45	paid
Mrs. Cannon	1 brick	.45	paid
Mrs. McGee	½ brick	.20	paid
Mrs. Farington	¼ brick	.10	paid
Mrs. Ellis	¼ brick	.10	paid

It was decided that \$1.25 of this amount be used in paying the hired help for the afternoon of the reception, leaving 5 cents in the treasury.

Mesdames Bradford, Rice, Sanborn, were appointed to select a souvenir spoon of Shawnee for Mrs. Douglas, to be presented by the Women's Auxiliary.

We then adjourned to meet with Mrs. Shive, Monday 27th, 1907.

Mrs. A. T. Grayson, Secretary

The Woman's Auxiliary met with Mrs. Shive, May 27th, 1907. Meeting called to order by President. After the reading of the minutes a new committee on Constitution and By-Laws for the local Society was appointed. Committee consisted of Mesdames Wiley, Sanborn, Sanders, and Fairington. They decided to meet with Mrs. Sanders May 29.

The State committee on Constitution is to meet May 28th with Mrs. Bradford.

Mrs. Henderson couldn't meet with committee and thought best to appoint someone else. Mrs. Bradford is to arrange for the committee.

Mrs. Ellis made motion and it was second-

ed by Mrs. Fairington that each member be assessed 10 cents a month as dues.

Business being concluded, they adjourned to meet with Mrs. Sanborn June 24.

Mrs. A. T. Grayson, Secretary

Woman's Auxiliary met with Mrs. Sanborn June 24. Meeting was called to order by the President.

Mrs. McGee was asked to act as Secretary as Mrs. Grayson was out of town.

After the reading of the minutes the committee on Constitution and By-Laws reported.

After some corrections, the Constitution and By-Laws were accepted.

It was then proposed we take up the study of Stoddard's Rules of Order. Mrs. Bradford was appointed to see about getting the books.

All business being transacted they adjourned to meet with Mrs. Cannon in July.

Mrs. McGee, Acting Secretary

List of those who paid for books, Mesdames Shive, Fairington, Wiley, and Bradford.

Our Doomed Orphanages

(Continued From Page 2)

trying to use their skills to the best of their ability to place the right child with the right young man and wife.

The desires of childless couples and the skill and experience of our professional social workers have now been joined by the protection of the state courts to insure that none of the "unwanted" infants in Oklahoma will be institutionalized. Perhaps our orphanages will soon be a thing of the past. We sincerely hope so.—J.M.

Book Reviews

Induced Delusions. Coyne H. Campbell, M.D. Cloth Binding, \$4.00. Pp. 189. Copyright 1957. Published by Regent House, 4707 Broadway, Chicago, Illinois.

To summarize Doctor Campbell's book is impossible. It is the very essence of his earnest and sincere convictions regarding psychoanalysis, a condensation from notes and writings which spanned a quarter of a century. It is the "summing up" of a brilliant and gifted man's thoughts after a life of intensive education and experience in medicine and psychiatry. These are his last words on a subject which occupied years of his life. It was his hope that there would be those who would listen. I believe that there are many who will listen.

Psychoanalytic principle and terminology have been incorporated into our civilization. Psychoanalysis started primarily as a "research procedure" and expanded through the phase of treatment for individuals to its present stature as explanation for all human behavior, past, present, and future. Such an all inclusive explanation of people, their thoughts, feelings, and their actions, should be subjected to searching scrutiny by any with intellectual endowment, background, and interest to comment upon it.

Doctor Campbell possessed these qualities. The results of his scrutiny will not be palatable to those who have cared for and nurtured psychoanalysis. It is very doubtful that many psychoanalysts will read this book through. The criticisms and questions will not all be answered, because such an answer is not possible.

The ultimate basis for an unprovable philosophy is belief in certain principles because they appear to be valid and are attractive. The advocates of psychoanalysis can merely say, "Neither we nor psychoanalysis are as Doctor Campbell has described us." On the other hand, Doctor Campbell has set forth systems of logic and has proposed certain possibilities that are worthy of consideration. He believed strong-

ly that what he said was justifiable and valid. If he was wrong, then the truth will stand on its own merits. If he was right, or even partially right, he has contributed to a sounder concept of human behavior.

The author has made the hypothesis that the apparent success of psychoanalysis is based upon a certain sequence of events. He describes this sequence as an original formulation of certain ideas and explanations by Freud, with the subsequent conveyance of these ideas to susceptible "disciples" who in turn have transmitted them to other susceptible people by techniques of suggestion. He has further indicated that in many instances dissemination of these explanations has proved harmful and has delayed more objective evaluation of physiologic processes involved in abnormal human behavior.

This book starts with an account of the author's first contact with psychoanalysis, his introduction into its circle of influence, and his skepticism concerning the motivation and the method of the people whom he contacted within that circle. This portion of the book was taken from notes recorded at the time of his own psychoanalysis. Doctor Campbell then presents a critical evaluation of Freud and his formulations, a discussion of some of Freud's early followers, and a description of this actual process of psychoanalysis. He discusses the rules under which psychoanalysis is conducted, the technical aspects of the suggestive procedures involved, the interpretations that are made to the patients and the rigid principles behind the process itself. The relationship between psychoanalysis and psychomatic medicine is introduced and a final comment is made for medical students and future psychiatrists.

Many important issues are discussed.

Our legal system is based on the assumption of responsibility by the individual. Yet to an alarming extent our culture accepts psychoanalytic principle which attacks the

doctrine that an individual is responsible for his own behavior. His behavior is said to be produced by improper parental treatment and social influence, placing the "blame" for abnormal behavior on others. Further development of this idea approaches the conclusion that our courts, our schools, and our government itself are merely reflections of the authoritarian attitude of the misguided parent and must therefore be altered to allow the individual to control his own destiny. In actual fact, our culture would collapse if every crime could be assumed to be the fault of someone else, and the criminal blameless.

If there are flaws in the logic of those who have been telling us how to alter our family relationships, our religious views, and our entire social structure, then these flaws deserve careful attention.

The foreword of this book was dated January, 1957, the month of Doctor Campbell's death. It represents his final attempt to express ideas concerning a matter which had been vitally important to him for many years. As such, it warrants respectful reading. He has raised questions which many will find quite interesting. It is likely that many comments will be made on the material in his book.

From the psychoanalyst the statement, "What I say is true," no longer is sufficient. Doctor Campbell has said in effect, "What you say is an unlikely theory and is dangerous. If you have a valid basis for your beliefs, demonstrate it conclusively or limit your activity to philosophy."—*Harold G. Sleeper, M.D.*

OSMA ANNUAL MEETING

MAY 5, 6, 7, 1958

Pediatrics. Donald Paterson, M.D. and John F. McCreary, M.D., Philadelphia and Montreal, 1956, J. B. Lippincott Company.

This clearly written, practical text by 36 contributing authors with experiences drawn from eleven Canadian and one American Medical Center is recommended reading for all of those practitioners who treat infants and children. The authors make no claim here to an exhaustive reference type text, but rather present a concise, modern approach to the common pediatric problems, with special emphasis upon diagnosis and treatment. This book finds its niche between the consultant type texts for those who specialize in pediatric problems, and the short synopsis type books whose place and value are debatable. Following each chapter a bibliography of review references is presented for those who desire more detailed information in a given area. Additionally, the bibliographies are reasonably complete and draw heavily from the American literature.

Deserving of special mention are the sections on gynecology, a frequently neglected area among pediatric writings, the section on therapy and procedures, including adequate data on antibiotic and steroid therapy, and finally the section on tropical diseases, especially valuable in the light of today's increased air travel.

By way of gentle criticism, some rare diseases are mentioned but so little is said of them, and so many are omitted, that in keeping with the authors' original aim, it might have been better to have omitted them altogether. Further, in the area of organization, one too frequently is referred to other sections of the book for material he logically would expect to find elsewhere.

Totally, however, this is a good text for those who want a concise, up-to-date and practical presentation of every day pediatric problems.—*George Lythcott, M.D.*

The Tenth Annual Meeting of the Oklahoma Chapter of the American Academy of General Practice will be held in Tulsa, February 3 and 4.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association January, 1933.

TRANS-URETHRAL PROSTATECTOMY

Rex Bolend, B.S., M.D.
Oklahoma City

"I wish to state in the beginning, this paper is presented by the urological department, University Hospital—I am merely acting as spokesman—the material herein presented represents as nearly as can be determined the status of trans-urethral resection at this time.

"Until some better method appears trans-urethral prostatectomy is here to stay; at the present moment with its numerous methods, machines, and technique, nothing is stable; it is however the beginning of a new era in urology, and brings to us the first advance since Caulk came out with the cautery punch about 1920. In this larger field we must look upon all sides and weigh carefully all the advantages and disadvantages, we must be determined by time, experience, and impersonal analysis of results as compared by present day surgical removal, as it is at present, or may be perfected.

"The journals (urological publications at least) are flooded with monographs on this subject. Every so often the medical profession is confronted with some new method or remedy which is claimed as miraculous in its therapeutic value and which like the candle, lighted at both ends, soon burns out and is gone. Most of you remember ten years ago the high hopes we had for the cure or arrest of cancer of bladder and prostate with radium. Mercurochrome and Hexyl-resorcinol held the center of the stage for a brief period, and now the dye twins pyridium and serenium are doing a Kentucky derby before us, and in my opinion will be 'also rans.' One more factor that must not be overlooked is the tremendous appeal this method will have on both doctor and patient. Its advertising possibilities are great and every owner of a systoscope is too liable to procure inadequate and unreliable equipment and attempt to operate, only to fail, and then condemn it. So the final analysis must come from calm, unbiased, open minded, competent observers after consideration of all the facts . . .

"While we carefully prepare the patient and give

him the same 'urological work out' as in prostatectomy; namely: bladder drainage, by indwelling catheter until infection is cleared, bladder visualization to determine the type of enlargement or any other anomalies, renal function as determined by blood chemistry, and general treatment during this process to build resistance and increase clotting time. Still the process is not so long, and no preliminary supra public drainage with its resultant discomforts are needed . . .

"In reviewing the history of this work we find just about as many views as there are essays, all are agreed however, that from the early part of the nineteenth century attempts have been made by Guthrie, Home Marcier, Bottini and many others, the real practical advance was started by Hugh Young in 1909 and further advances by Caulk in 1920, but all of these have had the disadvantage of working blindly. Since that time numerous instruments have appeared in an attempt at removal of the obstructing portion of the prostate. The chief difficulty has been to procure an instrument which would permit sufficient observation and carry a cutting cautery loop, Stern developed such a unit five years ago which was improved by Davis. Since that time numerous instruments, both the cautery and the electrical currents, until at the present time three or four are on the market which seem to have sufficient power to be satisfactory . . .

"We are not prepared at this time to state which is the preferable electrical unit.

"The operative technique is so very intricate and in such a state of turmoil at this time that we will make no attempt to present this in detail, but will confine ourselves to showing a few slides demonstrating the manner in which the resection is performed and some motion pictures of the layout made by Doctor Akin . . .'
1010 Medical Arts Bldg.

Editorial Notes—Personal and General

" . . . GARVIN COUNTY MEDICAL SOCIETY elected the following officers for 1933, at their meeting in December: President, Dr. Ray H. Lindsey; Vice-President, Dr. W. P. Greening; Secretary-Treasurer, Dr. John R. Callaway, all of Pauls Valley; Dr. R. M. Alexander, Paoli, censor; Dr. N. H. Lindsey, delegate to the state convention, Pauls Valley . . .

"WOODS-ALFALFA COUNTY MEDICAL SOCIETY met at Cherokee, November 29th, and elected the following officers for 1933: President, Dr. D. B. Ensor, Hopeton; Vice-President, Dr. A. E. McGrew, Beaver; Secretary, Dr. O. E. Templin, Alva. Dr. Hissem of Wichita, read a paper on 'Transurethral Prostatectomy,' and Dr. C. B. Barker, Guthrie, read a paper on 'The Suppurating Ear.' Both papers were illustrated by slides and moving pictures . . ."

Deaths

ROBERT L. NOEL, M.D.
1899-1957

Robert L. Noel, M.D., 58, an Oklahoma City orthopedic surgeon, died in St. Anthony Hospital Wednesday, December 11, 1957.

Born in Comanche county, Texas, Doctor Noel was graduated from the University of Oklahoma School of Medicine in 1928 and was a clinical professor of orthopedic surgery there until his illness.

Doctor Noel was a member of the Oklahoma County Medical Society, the Oklahoma State Medical Association, the American Medical Association, the Academy of Orthopedic Surgery and a Diplomate of the American Board of Orthopedic Surgery.

ONIS G. HAZEL, M.D.
1900-1957

Onis G. Hazel, M.D., 57, Oklahoma City physician since 1932, died in Wesley Hospital, Sunday, December 8.

Born in Norman, Oklahoma, January 12, 1900, Doctor Hazel was graduated from the University of Oklahoma School of Medicine in 1931. Later he studied at Columbia University College of Physicians and Surgeons, New York City, where he was awarded a Doctor of Science in Medicine Degree.

Doctor Hazel has been a member of the faculty of the University of Oklahoma School of Medicine for 24 years. A lieutenant colonel in the army air force during World War II, Doctor Hazel served as a chief dermatologist and assistant surgeon from 1942-1946. He was author of many scientific papers dealing with his specialty, dermatology.

A past-president of the Oklahoma County Medical Society, Doctor Hazel was also a member of the Oklahoma State Medical Association and the American Medical Association.

J. T. COLWICK, M.D.
1888-1957

J. T. Colwick, Sr., M.D., 69, died in Durant December 15, 1957.

Doctor Colwick was born in Clifton, Texas, February 24, 1888. After graduating from Southern Methodist University, Dallas, Texas in 1912, he practiced in Waco and Dallas before moving to Durant in 1920 where he resided until his death.

Doctor Colwick was a member of the Oklahoma State Medical Association and the American Medical Association.

J. HUTCHINS WHITE, M.D.
1873-1957

J. Hutchins White, M.D., 84, died in Muskogee, Oklahoma, November 15, 1957. Doctor White was born in Chatham, Virginia on April 17, 1873.

After graduating from the University of Virginia School of Medicine in 1896, Doctor White began a very active life in the medical profession. He served as President of the Oklahoma State Medical Association in 1915-1916. He was also Past-President of the Muskogee County Medical Society.

In recognition of his long life of service, the Oklahoma State Medical Association awarded Doctor White an Honorary Life Membership.

In addition to his membership in his County Society and the State Association, Doctor White was a member of the American Medical Association.

BYRON E. WILLIAMS, M.D.
1906-1957

Byron E. Williams, M.D., Oklahoma City physician died Tuesday, December 24, 1957 following a brief illness.

Born in Lawrence, Kansas, December 12, 1906, Doctor Williams graduated from the University of Kansas School of Medicine in 1934. He had practiced in Oklahoma City for 15 years.

Doctor Williams was a member of the Oklahoma County Medical Society, the Oklahoma State Medical Association, and the American Medical Association.

PHYSICIAN PLACEMENT

Internal Medicine

Louis K. McCown, 1516 Third Ave., N.E., Rochester, Minnesota, age 33, married, Tulane, 1949, Residency at Mayo Clinic, Veteran, available January 1, 1958.

Bartis M. Kent, 225 Koser, Iowa City, Iowa, age 32, married, Baylor, 1948. Three year residency at Baylor, veteran, available July, 1958.

General Practice

Jack L. Coats, M.D., 1414-A East 17th Place, Tulsa, Oklahoma, age 29, married, veteran, University of Oklahoma School of medicine 1957, will be available July 1, 1958.

Neurosurgery

Bahif S. Salibi, M.D. (Currently Captain, MC U. S. Army) 121 Evac. Hosp., APO 971, San Francisco, California, age 35, married, Board qualified in Neurosurgery, except for the two years of private practice required by the Boards, available October, 1958.

Thoracic and Cardiovascular Surgery

Wayne E. Hird, M.D., McGuire VA Hospital, Richmond 19, Virginia, age 31, married, Korean veteran, University of Kansas 1950, Board qualified in General Surgery, Thoracic and Cardiovascular exams will be completed by next July. Will be available July, 1958.

Obstetrics & Gynecology

Herbert Claibrone Jones, Jr., Box 166, University Hospital Charlottesville, Virginia, age 30, married, University of Virginia 1951, finishing board qualifications, will be available Spring, 1958.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

H. N. Hamilton, M.D., 13 Evergreen Road, Little Rock, Arkansas, age 36, married, veteran, The Johns Hopkins, 1945, finishing Orthopedic Residency July 1958 and will be available at that time.

CLASSIFIED ADS

WANTED: Physician to do general practice and general surgery—to take the place of Dr. J. P. Braun, recently deceased—Hobart, Oklahoma. Well established large practice; modern air conditioned clinic building, hospital facilities. Contact Dr. J. William Finch, Hobart, Oklahoma.

5-TON Westinghouse Air Conditioner property of Association, excellent condition, \$500.00.

WANTED—Your surplus medical equipment. Used equipment of all kinds bought, sold, traded. Microscopes and electro-medical instruments repaired. Let us know your equipment problems. Write TEX-RAY 3305 Bryan St., Dallas 4, Texas.

LOCATION and office space for General Practitioner in Oklahoma City, Oklahoma. Very attractive proposition. No money necessary. For further details, telephone Jackson 5-2435 or write to Dr. O. N. Copledge, 2112 N. W. 12th Street, Oklahoma City 7, Oklahoma.

CLINIC LOANS: If you are planning to build a clinic, and need to secure financing, call Pat Allen, WI 2-2402 or write 1201 Classen Dr., Oklahoma City.

PHYSICIAN'S OFFICE EQUIPMENT: Medical Arts Building, Oklahoma City, available in nice office; two examining tables and stools; desk; reception room furniture; filing equipment; bookcase; refrigerator; scales; sterilizer; many small items; \$500; Write Key F, c/o THE JOURNAL, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

ANESTHESIOLOGIST: Opportunity for an M.D. Anesthesiologist in a 90 bed hospital. City of 20,000 population plus Oklahoma State University with 10,000 enrollment. Contact David C. Foster, Administrator, Stillwater Municipal Hospital, Stillwater, Okla.

FOR SALE: Young Cystoscopic table, 100 M A rotating anode tube, controls, transformer, cassettes (complete unit) 3 years old—\$2,500.00. Springer Clinic, Tulsa, Oklahoma, LU 7-6621.

FOR SALE: Office equipment consisting of reception, consulting, examining, supply room. This office is located in northeast Oklahoma and the rent is fifty dollars per month if you should desire to use the present building. There is an opening here for another young doctor and this office could be ready for business immediately. The office equipment price is \$2,000. If interested contact JOURNAL.

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The Changing Role in Medical Care*

The changing role in medical care particularly as it relates to hospitals and some of the trends in medical practices which may have a considerable impact on hospitals in the future are of serious concern to you representing the hospitals, to us as practitioners of medicine and to the public in general—recipient of these services.

Let us consider some of the factors which have greatly effected both the operation of hospitals and the practice of medicine during the past 20 years or more and then project for our thinking some of the probable trends and influences which may shape the future.

At the head of the list of those factors which have effected the hospital and the practice of medicine for the past 20 years, we would place prepaid voluntary medical, surgical and hospital insurance. This came into being in the depression years of the 30's to meet a serious economic need, and though its progress was slow in the beginning it is of major importance today. Among other forces which have had their effect, we would suggest:

a. A sustained relatively high percentage of employment and gradual increasing level of income of the American people.

b. Increasing knowledge of body chemistry, laboratory procedures, fluid balance, physiotherapy, Rh factor, blood transfusions, etc., have considerably affected hospital routine.

c. Antibiotics have practically eliminated some conditions for which patients were formerly hospitalized for rather long periods of time, notably Empyema, Mastoiditis, Osteomyelitis, Peritonitis and Pneumonia.

d. The development of anesthesiology

during this time has made possible great advances in surgery, especially intrathoracic surgery (lungs, heart and blood vessels), as well as intracranial procedures, all of which reflect in hospital operation.

e. There has been an increased expenditure for therapeutic agents (antibiotics, drugs, plasma). This together with the rising cost of food, nursing and other ancillary services has added to the hospital administrative load.

f. In 1947 in Oklahoma there were 5,891 hospital beds—as of now there are over 7,800 and by January 1959 there will be 8,500.

Even a cursory consideration of these statements would make anyone aware of the changes which have come about in hospitals and medical practice in 20 years. One can only speculate as to what would have happened to the hospitals and the practice of medicine 20 years ago if prepaid voluntary insurance plans had not come into being. Such prepaid voluntary insurance plans, however, can never come to their ultimate fulfillment until there is a complete understanding on the part of the hospitals, physicians, and patients of their individual responsibilities to ALL such plans.

It does not appear possible or practical at the present time to insure all medical, surgical and hospital care just as it doesn't appear possible to insure 100 per cent against all other hazards in our everyday existence—fire, wind, hailstorms, floods, pestilence.

Various riders, clauses, and special policies now enable one to secure protection against a horde of catastrophic illnesses. With further education, greater cooperation among the three sides of this medical triangle (the hospitals, the medical profession and the patient) and an honest acceptance of the responsibilities of each, far more can be accomplished. With patients now unnecessarily utilizing hospital beds and care, with physicians frequently lacking courage

*An address given by George H. Garrison, M.D., past president of the O.S.M.A., before the General Session of the Oklahoma State Hospital Association, Tulsa, Oklahoma, November 8, 1957.

to terminate hospital stay when it could end, and with the hospital quietly acquiescing in this, the future of prepaid voluntary insurance programs hangs in the balance.

In 1940 in Oklahoma Blue Cross utilization was 80.4 hospital admissions per 1,000 policy holders at an estimated average hospital per diem cost of \$4.50. Today its utilization is approximately 156 per 1,000 at a hospital per diem cost of nearly \$18.00. You see then in this period of time the utilization has doubled and the hospital per diem cost has nearly quadrupled.

The average hospital stay in 1940 was seven days. Now it is 6.3 days. With the efficacy of antibiotic therapy, together with today's early ambulation of surgical and obstetrical patients, it is inconceivable that this average stay has not been further reduced. It challenges all of us to search for the explanation of this apparent inconsistency and obviously illogical experience.

Hearsay brings it to us that recently in this city (Tulsa) at a civil defense meeting a physician was asked how many hospital beds could be made available at once for an emergency situation, without endangering the patients who would be discharged to meet that situation. Somewhat facetiously he answered in effect, if there are no Blue Cross-Blue Shield people here I would say 50 per cent could be. Though there was a chuckle of mirth, this illustrates the lack of understanding of the deep underlying reason for prepaid voluntary insurance and points up the fact as to why it is necessary for all such prepaid plans to continually revise their schedules to meet the oft' times unreasonable demands for service. When the public at large, the medical profession and the hospital more fully appreciate that unnecessary utilization increases the cost of coverage as a whole and eliminates benefits which all might have, there will develop a more realistic and practical coverage.

There is no clear line of distinction between those factors and forces which have affected the hospitals and the practice of medicine in the past and those which will in the future. There is necessarily overlapping.

Looking ahead, however, one can say with

a fair degree of assurance that insurance programs are going to play an increasing role in the operation of hospitals and the pattern of medical care in the future as various types of policies are designed for individuals, employed groups, employers, unions, governmental agencies, group practice, cooperative plans, and in the form of service contracts as contrasted to indemnity plans, etc., etc.

Your attention should be directed to a recent 30 page monograph by Mr. W. R. Bethel,¹ Assistant Executive Director, Blue Cross and Blue Shield entitled "Pressure Groups in Health" which gives a comprehensive discussion of the forces at work to provide medical, surgical and hospital coverage especially for employed groups—some even going so far as to provide their own hospitals and salaried physicians to carry out the plan. Mr. Bethel points out that there are 18 million members of organized labor, who with their dependents make some 55 million people in all, with union welfare funds to support their health aims in the amount of 40 billions of dollars, which he states is several billions in excess of that accumulated by social security funds by every working person since 1932.

Of further interest in this direction are the increased benefits being asked—yes, even being demanded to include such provisions as:

365 days for one admission.

All X-ray procedures.

Expanded out-patient benefits—diagnostic services as an example.

Expanded benefits in the field of nervous and mental disorders.

Higher private room allowances.

Accreditation of hospitals may bring about some changes in that there may be more careful scrutiny of all surgical specimens which could have the effect of lessening the number of surgical procedures in some categories and in some areas. "Rooming In" now with a swing of the pendulum in that direction could require some minor administrative changes. Likewise rehabilitation programs and extension of physical

medicine for spastics, paralytics, traumatic handicaps and cardiac cripples will require further modification of hospital procedure.

It seems entirely possible that with early ambulation of surgical and obstetrical patients and with the effectiveness of antibiotic therapy in other conditions, the length of hospital stay could be lessened. While lessening the hospital stay may increase the per diem cost, it should reduce the total patient cost per hospital admission, and at the same time make for more effective use of general hospital beds *without increasing the number*. Hospitals should become realistic about the per diem cost. They should lay it on the line and let the public know what it costs. They should advise wherein the policy holders may assist in altering some procedures and benefits by which they may profit.

Charging physicians a per diem for medical, surgical and obstetrical patients is not the answer to meeting a hospital deficit. It will only be passed on to the patient with a misconception on the part of the patient as to what portion of his expense is medical and what is hospital.

I quote from *North Carolina Medical Journal*, Volume 17, June, 1956:

"A SMALL LEAK WILL SINK A GREAT SHIP"
G. WESTBROOK MURPHY, M.D.

"There are hospitals in North Carolina who hire physician-employees so that the differences in fees collected and the salaries paid provide a source of income for the institutions. One North Carolina hospital passed and attempted to enforce a regulation requiring that the medical staff turn over to the hospital from 10 per cent to 50 per cent of moneys earned in private practice within the institution. Another North Carolina hospital tried to enforce a rule which would require physicians to purchase staff appointments at a rate of \$500.00 each."

Any attempt on the part of the hospital to take over the practice of medicine or to sell staff appointments for the privilege of working in a hospital will meet with a united resistance. Moreover, you are aware that the courts have ruled that corporations can not legally engage in the practice of medicine.

These are not approaches to a solution.
LET'S FACE THE FACTS OF HOSPITAL

COSTS OPENLY AND FRANKLY. Hospitals should refuse to accept welfare patients for less than it costs to care for them. If they lose on these patients it is unfair for the paying hospital patient. Whether from his own funds or insurance funds, it is unfair for him to make up the deficit when it should be borne by the population as a whole. A really serious situation is before us now in the matter of hospitalization of Public Welfare Department charges. It is difficult to see how this problem can be solved as it is now set up, with rather limited periods of hospital care provided and no machinery operating to terminate the hospital stay when this time is up.

Down the road ahead if there can be some way of determining an equitable solution of "diagnostic services" by prepaid insurance plans so that these may be done as office procedures it will affect hospital usage. The solution of bedside nursing problems is another major hurdle for the hospitals to solve with the proper and most effective utilization of nursing administrators, graduate nurses, practical nurses and orderlies. Enlargement of Visiting Nurse Association services will perhaps over the years enable many "chronic" patients to be out of the hospital for all but most urgent care.

Construction and utilization of convalescent hospitals, and geriatric nursing homes (which can be done for less cost than general hospitals) is a great need everywhere and will provide beds without such a large investment. This could and probably would modify the necessity of providing further general hospital beds during this period of readjustment and for a long time in the future.

I do not hold with those who say prepaid voluntary insurance plans are out of the financial reach of the average worker and therefore advocate a compulsory government operated medical-health insurance. To quote from Emerson P. Schmidt, Ph.D., Director Economic Research, Chamber of Commerce of the United States:

"In 1951 we spent for health and medical services individually and through government about 13.6 billions. In the same year we spent for alcoholic beverages, tobacco and smoking supplies

13.2 billions. Consumer expenditures for health and medical services came to \$8,976,000.00 as against a figure for alcohol expenditures along at \$8,450,000.000. Consumers spent more than 50 cents on smoking supplies for every \$1 spent on health and medical services."

THERE MUST BE AN AWAKENING AS TO SENSE OF VALUES. I have no quarrel with the individual who says he should be free to spend his money for alcoholic beverages and tobacco if he chooses, but why when he so chooses to spend his money, do we have to say because of that he cannot pay for hospital, medical and surgical insurance. Why not say he cannot pay rent, or food or clothing and subsidize him in one of those aspects of his existence. It makes as much sense. It is just as logical.

In summary we have reviewed some of the factors which have influenced hospital operations and medical practice the past 20-25 years. We have suggested guideposts which may determine in varying degree the direction in which we move now. Let us seriously consider these suggestions and others that may occur to us; carefully weigh and evaluate them in our efforts to provide better medical and hospital care for all the people. Finally after such careful, conscientious analysis and study let us each have the courage to honestly face and accept our individual responsibilities.

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PLAN TO ATTEND OSMA ANNUAL MEETING

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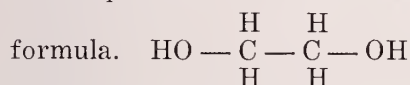
OKLAHOMA CITY

ETHYLENE GLYCOL *Antifreeze* POISONING

WILLIAM H. SIMON, M.D. and T. R. PFUNDT, M.D.

Ethylene Glycol is the main component of permanent antifreeze solutions. Before 1930 it was generally not considered to be particularly toxic, then a report of two fatalities appeared.^{1,2} Since that time sporadic case reports of its rather pronounced toxicity even when ingested in small amounts have appeared in the world literature. The majority of these have ended fatally and almost all have been in adults who have sought a substitute for alcohol.

This substance is a clear, colorless, odorless liquid with the following chemical



Its boiling point is almost twice that of water (197°C).

Ethylene glycol is metabolized in the body to oxalic acid and glycolic acid. The pathologic changes produced are probably due largely to the oxalic acid. Numerous calcium oxalate crystals are characteristically found in the urine, but are not specific.

The advent of the "do it yourself" era is leading to an increase in the number of homes and garages containing jars and cans of antifreeze. The number of cases of ethylene glycol poisoning in children can be expected to increase unless an adequate educational program is instituted. As little as 10-15 ml. left unused in a can or jar within a child's reach is an extremely hazardous situation.

It has a toxicity approximately the same as methyl alcohol. Hunt³ suggested that the minimal lethal dose in the adult man is about 100 ml., or approximately 1.4 ml. per kilogram. Thus as little as 14 ml. in a 10 kilogram child could produce death. Kahn and

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Brothner⁴ did however report the survival of a young adult after ingestion of 240 ml. Despite the marked toxicity of this substance its dangers are almost unknown to the general public. Existing laws do not require it be labeled as poison. Temporary antifreeze compounds containing methanol are labeled as poisons and their toxicity is no greater than that of ethylene glycol. The leading brands of permanent antifreeze now have a caution note on the cans but many brands make no mention of its toxicity.

The following report is the case history of a child first seen in coma. He was a diagnostic and therapeutic problem that was not diagnosed as ethylene glycol poisoning until several hours after admission, and then only after repeated history taking from the family and elimination of other possible causes. Some of the disease processes that had to be considered and ruled out when the patient was first observed were salicylism, meningitis, encephalitis, glomerulonephritis, diabetes, and central nervous system trauma.

Case Report

History:

A 26 month old white boy was admitted in coma to the 2792nd U.S.A.F. Hospital on October 31, 1956 at 7:30 p.m. He was apparently in excellent health before and on the morning of admission. His only past illness was congenital hypertrophic pyloric stenosis which was corrected surgically at the age of five weeks. The morning had been spent playing in the yard and garage. After a normal lunch he was placed in bed for his nap. At 5:00 p.m. he could not be aroused and it was decided to let him sleep. At 6:30 p.m. he was taken to the hospital when he still could not be aroused.

The patient was deeply comatose, all the deep tendon reflexes were hypoactive and he responded only slightly to painful stimuli. Weight 12.1 kilo; T 99°; P 120; R 44; Blood pressure 110/68. Hyperpnea and tachypnea were marked.

There was no past history of trauma and the parents thought that no medicines or poisons were within his reach with the possible exception of aspirin. An open partly filled can of permanent antifreeze was in the garage where he had played during the morning. (The parents reported that this was later found empty and overturned.)

WBC 51,000 (N-60%; L-20%; M-1%; E-2%; B-1%); Hemoglobin 13.5 gm.; hematocrit 42%. Urine 2+ albumin; 12-15 RBC/hpf; 1+ acetone; sugar—negative. X-ray films of the skull were normal. The initial spinal fluid examination was within normal range. Blood sugar was 57 mg. per 100 ml.; Cl-93 meq/l; CO₂ 21.6 meq/l (48.1 vol.%); serum salicylate level 0.

Fluids were administered intravenously and terramycin was added to the solution. The patient continued to hyperventilate and was unresponsive throughout the night.

On November 1, there was no change in the state of consciousness. The maximum for the pulse was 184, the respiration 48, and the temperature 102° (rectally). The blood pressure at times was unobtainable. Projectile vomiting of dark fluid positive

for occult blood occurred four times. Generalized convulsions began occurring every few minutes and lasting 40-120 seconds. Calcium gluconate a total of 15 ml. was given in divided doses over the next 24 hours. Twenty-one units of insulin was given during the day. Sodium amytal in 45 mgm. amounts was given six (6) times for control of convulsions. Oxygen was started. WBC-68,000 (N-82%, L-18%); hemoglobin 13.5; hematocrit 42%; NPN-97 mg%; CO₂ 6.5 meq/l (14.5 vol.%); urine 100+ RBC; 4-6 WBC's/hpf. Calcium oxalate crystals and rare granular casts were present in the urine. Later in the day serum electrolytes determined at another hospital revealed a CO₂-1.04 meq/l (2.2 vol.%); CL-112 meq/l; Na 146 meq/l; K 7.16 meq/l. Respiration became irregular and deep. A portable pH meter was obtained and the pH of the blood found to be 6.8. Sodium bicarbonate was given in a dose calculated to raise the CO₂ by 5 meq/l and this was followed immediately by M/6 sodium lactate calculated to raise the CO₂ 5 more meq/l.

On November 2 the patient was improved slightly but continued to have frequent mild convulsions and occasional dark emesis. Urinary output was good. The urine contained many red blood cells, 1+ albumin, and many calcium oxalate crystals. Because of the difficulty in obtaining electrolyte studies and inadequate facilities the patient was transferred to Children's Memorial Hospital.

The physical examination upon arrival there was essentially unchanged. The respiration was Cheyne Stokes in types with periods of apnea and cyanosis. The convulsions were predominately on the left side. All deep tendon flexes were hyperactive. A roentgenogram of the chest showed a patchy increased density in the right base. The urinary output was 125 ml. during the next 16 hours and was replaced with 10% invert sugar. One hundred thirty ml. of whole blood was given. For a complete list of all laboratory determinations see Table No. 1.

November 3—The convulsion continued despite frequent injections of sodium amytal. The blood pressure averaged 90/70, the pulse

	Oct. 31	Nov. 1	Nov. 2	Nov. 3	Nov. 4	Nov. 5	Nov. 6	Nov. 7	Nov. 8	Nov. 13	Nov. 26
Hemoglobin	13.5	13.5	10.5 8.7	8.2	11.1	11.5				9.8	9.6
Hematocrit	42	42	21	21	33				33		
WBC	51,000	68,000	28,000 18,900	6,150	13,000	15,400	20,950		23,650	10,300	9,600
Differential	N-60 L-26 M-11 E-2, B-1	N-82 L-18	N-79 L-19 M-2	N-41 L-50	N-67 L-25 M-6, E-2	N-61 L-38	N-65 L-24 M-2, E-3 B-2		N-61 L-34 M-2, E-3	N-30 L-59 E-11	
CO ₂	21.6 meq/l (48.1 vol%)	6.5 meq/l (14.5 vol%) 1.04 mg/l (2.24 vol%)	14.3 meg/l (31.4 vol%)		15.25 meq/l (33.6 vol%)						
Cl	93	112	105		114						
Na		146	140		156						
K		7.6	4.6		4.0						
PH											
Glucose											
NPN		99									
BUN		77						71			
Bilirubin			T-0.29 O-.14 I-.15								
Calcium								11 mg%			
Phosphase								2.4 mg%			
ASO CRP							Neg. 1+				
Total Proteins & A/G								T-5.1 3.5 A-G-1.6			
Prothrombin time				22.4 sec. (control 15.1)	28 sec. (control 17 sec.)			20.2 sec. (control 16.2)			
Bleeding time			1 min. 30 sec.								
Clotting time			5 min. 10 sec.								
Cerebro- spinal Fluid											
Smear Culture	Neg.		Neg.			Neg.		Neg.			
Cells	0		L-110 P-7			L-5 P-5		L-3			
Sugar	40		100			100		52			
Globulin	Neg.										
Total Protein	23		15			50 mg%		50 mg%			
Salicylate Level	0										

TABLE No. 1

130 and respirations 34. The temperature ranged from 100.6-103°.

November 4-5—The pupils began reacting to light. The convulsions became less frequent and the patient began withdrawing from painful stimuli and crying. A black tarry stool was passed.

November 6—Began taking glucose water well. Only one convulsion all day (the last).

November 7-8—Patient still lethargic but on the eighth followed a light with his eyes.

Patient coughed frequently, vomited some and was still having tarry stools.

November 9—The right arm was noted to be paralyzed but the left arm moved freely but in a purposeless manner. A phlebitis developed at the cut down site. The temperature was elevated to 103°.

November 10—He reached for a glass and was able to hold it with help. The first yellow stool was passed.

November 13—The patient was develop-

ing increasing strength but the right arm and hand were still very weak.

November 14-18—Continued to be lethargic but began standing with help and on the 18th walked with much difficulty and a staggering gait.

November 20—Weight 20 pounds (9.1 kilo). Discharged. Apparently well except for weakness the right arm.

November 26—Weight 25 pounds. The examination was normal except for slight weakness of the right arm and hand.

September, 1957—The patient has normal mental and physical development. No evidence of residua found. Renal function was found to be normal.

Discussion

Reports of acute poisoning from the ingestion of ethylene glycol have been appearing in the literature since 1930. The number of reported cases in children have been very few and as far as can be determined all have been fatal.

Signs and symptoms of toxicity are due largely to the involvement of three organs; lungs, brain, kidney. Almost all other organs can show degenerative changes but as a rule are not responsible for death. Sudden acute severe poisoning is most apt to result in death from pulmonary edema or from respiratory failure. If death does not occur suddenly, then early renal failure is a common cause, but may be accompanied by bronchopneumonia and hemorrhagic bronchitis.

Symptoms are usually absent immediately after ingestion even of large doses because of slow absorption from the gastrointestinal tract. The irritation to the GI tract often causes vomiting. The emesis may contain blood from gastric mucosal hemorrhages. Involvement of central nervous system is evidenced first by excitation which may closely resemble alcoholic intoxication. In severe acute cases this is followed by coma, convulsions, and finally respiratory failure. The spinal fluid often contains cells from the chemical meningoencephalitis.⁵ Unless physicians are cognizant of the spinal fluid

changes in ethylene glycol poisoning a mistaken diagnosis can easily be made. Common gross findings in the brain are edema, hyperemia, and petechial hemorrhage. Microscopically there are signs of encephalitis and meningitis. Inflammatory exudate is present. Calcium oxalate crystals are found in and around the blood vessels. Pons and Custer⁶ demonstrated degenerative changes in some of the ganglion cells of the cortex, brain stem, and cerebellum.

Though the kidneys are involved in every case, renal failure is usually not responsible for the patient's death unless death is delayed for several days. The urine characteristically contains calcium oxalate and albumin. A hemorrhagic nephritis can occur as it did in our patient but in most cases hematuria is not present. Grossly the kidneys are swollen. Calcium oxalate crystals are found throughout but most are located in the renal tubules. Congestion is a constant finding but extensive renal tubular epithelium destruction is found only occasionally.

Therapy

Gastric Lavage—The greatest chance for salvage of a patient after ethylene glycol ingestion is prompt gastric lavage. Absorption from the gastro intestinal tract is slow thus making it advisable to lavage every patient even if there has been some delay in seeking medical attention.

Saline Cathartic—The administration of a saline cathartic is probably indicated to remove any of the ethylene glycol that has passed into the intestines.

Calcium—It seems that the administration of I.V. calcium could prove life saving by converting the oxalic acid to inert calcium oxalate. Grant⁷ reported recovery in a case given calcium gluconate. It is thought that the I.V. calcium gluconate given to our patient was helpful.

Electrolytes—should be maintained as near normal as possible. It is certain that our patient would not have survived if the pronounced acidosis (CO_2 -1.04 meq/l; pH-6.8) had not been promptly brought nearer normal by use of alkalizing solutions.

Urine Analysis

	Oct. 31 (evening)	Nov. 1	Nov. 2	Nov. 5	Nov. 26	Analysis
Specific Gravity			1.031	1.015	1.005	
Albumin	2+		1+	Neg.	Neg.	
Sugar	Neg.		Neg.	Neg.	Neg.	
Acetone	Pos.		Neg.	Neg.		
Diacotic Acid			Neg.			
Microscopic	12-15 RBC's /hpf	100 RBC /hpf Coarse granular casts Calcium Oxalate Crystals	100+ RBC 3-4 WBC Calcium Oxalate Crystals	Innumerable Calcium Oxalate Crystals	Neg. Neg.	

TABLE No. 2

Dihydrotachysterol—Milles⁸ suggested using a parathyroid preparation as possible therapy but did not use it in any cases. It would promote the mobilization of calcium from the bone and raise the concentration of the plasma calcium.

Insulin—has also been suggested as useful in ethylene glycol ingestion because it has been found by De Lucia⁹ to increase the rate of oxidation of oxalic acid in the body.

Fluids—should be administered slowly and with caution, in view of the frequently seen cardiac dilatation and pulmonary edema and renal failure.

Oxygen—should be given during times of cyanosis, respiratory distress, and convulsions.

Barbiturates—can be used to control convulsions.

(The apparent value of exchange transfusion in salicylism makes us feel that it may have a place in poisoning with ethylene glycol—but the rather slow absorption of ethylene glycol would surely make this procedure less effective than in salicylism.)

Summary

A case of severe ethylene glycol (anti-freeze) poisoning with recovery in a child is reported. This child presented evidence of cerebral, renal, pulmonary, and gastrointestinal pathology.

- (1) Ethylene glycol is a potent poison, and small quantities when ingested can be fatal.
- (2) Laws should be enacted making it mandatory that manufacturers label ethylene glycol products poison.
- (3) The public should be informed of its hazards and adequate measures taken to keep open cans and jars out of reach of children.
- (4) All cases aren't hopeless if prompt gastric lavage is performed, intravenous calcium gluconate given and electrolyte balance maintained.
- (5) The question of the possible benefits of exchange transfusion is raised.

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LABORATORY *and* CLINICAL DIAGNOSIS

THOMAS H. HAIGHT, M.D.

Preceding articles in this series have dealt with streptococcal infections, since these are the *sine qua non* of rheumatic fever. But it must be pointed out that rheumatic fever is a recurrent disease, and that each recurrence increases the risk of valvular heart disease. Thus, to STOP RHEUMATIC FEVER one must be alert and conscious of the symptoms, signs, and laboratory evidence that will lead to the diagnosis of this all too common affliction. Credence for this point of view is gained from review of the data which the thoracic surgeons and pathologists have obtained during cardiac surgery, such as mitral commissurotomy. Depending upon the size of the series studied and the thoroughness with which pathologic specimens were obtained during surgery, from 30 to 60 per cent of these patients show Aschoff nodules in the auricular appendage. Yet by all conventional clinical and laboratory tests these patients were "inactive," or else they would not have been subjected to surgery. Thus, age limits for prophylaxis have been extended, as pointed out last month.

If we cannot depend upon the customary evidence, how can we possibly hope to STOP RHEUMATIC FEVER either by treatment, prophylaxis of patients who have had the disease, or by early management of individuals who are having recurrences? This present discussion is intended to review some of the clinical and laboratory evidences of the disease, and perhaps such information will insure that the patient gets therapy from his physician at the earliest possible time.

The exact incidence of rheumatic fever in this country cannot be accurately estimated for many reasons. For one, the symptoms and signs of the disease are so variable and diffuse that undoubtedly many patients are treated for something else, as is borne out by the fact that many individuals come to necropsy showing severe rheumatic heart

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disease without it ever having been suspected during life. Certain statistical and epidemiological surveys have shown that rheumatic heart disease exists in three to six per cent of the population at large; hence, the incidence of rheumatic fever must be higher. No differences have been demonstrated in the occurrence in the two sexes. More than half of the individuals who have once had rheumatic fever may be expected to have another attack unless adequately protected by antibiotic prophylaxis, and each attack increases the risk of heart damage.

If a patient with known rheumatic heart disease or previous rheumatic fever develops any of the classical forms of streptococcosis, then the wise physician can almost certainly prevent a recurrence of rheumatic fever. This is more apt to be true of older patients than of children. This, of course, is where the real crux of the problem lies, for the greatest incidence of rheumatic fever is between the ages of 2 and 17 years, and these are the patients who may be less likely to relate their symptoms early and clearly to the doctor. When the preceding streptococcal infection is objectively apparent, such as scarlet fever, erysipelas, and perhaps a draining otitis media, there is less difficulty in getting early therapy instituted. Even when there is a definite history of pharyngitis or other suppurative complications of streptococcal infection, the interval between the initial infection and the onset of rheumatic fever may be as long as six weeks or more. By this time the patient, and frequently the physician too, does not make the

association with the preceding illness, and hence misses the diagnosis, particularly if the onset is vague and insidious, as it is prone to be.

While the disease is generally accompanied by a persistent mild fever, some patients do *not* have elevations of temperature until the late afternoon. This taxes the physician's ingenuity, since healthy people have a diurnal rise in body temperature. The total leukocyte count is more often normal than not, even in the face of fever and generalized symptoms. This is a leading clue that the ailment is at this point probably non-infectious. Malaise and asthenia are common symptoms when one inquires about them, but they are often not mentioned by the patient because other symptoms seem more pressing and severe. The significance of these symptoms lies in the fact that they suggest that this is a generalized disorder and not restricted to joints or whatever other areas may annoy the patient. Many patients are nearly prostrated, in fact, long before they develop the classical polyarthritis.

We have always been told that migratory polyarthritis involving the small joints is almost pathognomonic for rheumatic fever, but this can be a very confusing issue. Care must be taken to consider the other so-called "collagen or rheumatic diseases" before deciding on this one. Conversely, the arthritis may not be so innocuous as often described. Fluid can occasionally be aspirated from joints, and there may be a considerable degree of peri-articular inflammation and tenosynovitis. A helpful observation is the duration of the joint involvement, for it is rare in rheumatic fever for the arthritis to last more than a few days to two weeks or so, whereas other forms of arthritis are more persistent.

The cutaneous manifestations of rheumatic fever are of little help, except, perhaps, to confirm the diagnosis. The most typical is erythema marginatum, but this occurs in only a small portion of the cases. On the other hand, epistaxis is fairly common and probably occurs in the majority of patients. Indeed, its occurrence in a child should always make the physician think of

rheumatic fever in the differential diagnosis of any illness. Abdominal pain is always a difficult symptom to evaluate, especially in children. Not infrequently children are subjected to operation, usually for acute appendicitis, when a more careful work-up would have shown other evidences leading to the diagnosis of rheumatic fever. The same may be said about pleuritic pain, which is rather common in the more severe forms of the disease. Indeed, a not inconsiderable number of patients have a rheumatic pneumonitis accompanying the illness and are treated for pneumonia, and the basic pathology is overlooked.

Chorea occurs almost exclusively in children and commonly occurs in rheumatic fever in this group. It has been stated that the presence of chorea is a favorable prognostic sign, in that the incidence of subsequent rheumatic heart disease is lower than in the group with other symptoms and signs. The patient with chorea is also less likely to have as much fever and rarely has leukocytosis.

Subcutaneous nodules are quite characteristic of the disease. These nodules are usually small, but may be as large as 2 cm. and are located over the extensor tendons and extensor aspects of various extremities. The skin is freely moveable over the nodules and can generally be seen by mere inspection. The presence of subcutaneous nodules is a grave prognostic sign, for the incidence of carditis is considerably higher in this group of patients.

Carditis in all its manifestations is the feature most feared by all, for as noted above, all the other symptoms and signs disappear spontaneously within a short time. But it is the heart that bears the brunt of the blow that rheumatic fever inflicts. Fortunately, not all patients develop carditis, i.e., they do not manifest murmurs, cardiac enlargement, or signs of heart failure, and their electrocardiograms are normal. There are few symptoms associated with active carditis unless the patient is in frank cardiac failure. It is a rare patient who has anginal-like precordial distress. All patients must be followed closely with serial electrocardiograms and full size chest x-rays to

determine if there has been any damage to the heart. It may be months before damage is evident, and one early, isolated observation is inadequate. Changing murmurs are a helpful but over-rated clue, for even the same physician finds it difficult to judge today's sounds against yesterday's.

Few things in the laboratory are helpful in the diagnosis. As mentioned above, the total leukocyte count may be elevated at first, but even with serious forms of the disease, this returns to normal with bed rest alone. Antistreptolysin O titers are customarily performed, to see if there has been a recent streptococcal infection; but many patients with rheumatic fever have normal titers, and the persistence of a high titer bears no relationship to the activity of the rheumatic process. The sedimentation rate is also usually elevated during the acute

phase, but this is variable, and this test is much more unpredictable in relation to the clinical evidences of rheumatic activity. The C-reactive protein is almost always greater than 1+ when the rheumatic process is active, and Rantz has found it to be the best index of continued rheumatic activity, i.e., once the diagnosis of rheumatic fever is established on other criteria, the persistence of an abnormal C-reactive protein tests probably denotes continued rheumatic activity.

It is evident from the foregoing that there are no simple clinical or laboratory tests for the diagnosis of rheumatic fever, and it is certain that many cases will continue to occur without benefit of medical attention. The application of some of these factors may help, however, to STOP RHEUMATIC FEVER.

The Management of

DIFFUSE FECAL PERITONITIS

JIM H. CALHOON, M.D.

An acute perforation of the colon producing diffuse fecal peritonitis, often complicated by sepsis, shock and death is an old problem with many recent advances in therapy. The established principles of diversion of the fecal stream and exteriorization of the diseased bowel provide the basis of rational surgical treatment.

It is now recognized that the shock of overwhelming sepsis may fail to respond to the usual measures of whole blood, plasma expanders, correction of fluid and electrolyte imbalance and current methods of antibiotic administration. Altemeir and Cole,¹ recently reported 93 such cases of shock due to sepsis and ending in death. A substantial number of these were due to fecal peritonitis.

The use of blood and blood substitutes is not always helpful since the shock is due more to peripheral vascular collapse than to blood loss. Herein lies the basis of treatment with the more potent vasopressors. Norepinephrine is considered the drug of

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choice and is best given by continuous intravenous drip in the antecubital vein. Much care should be used during its prolonged administration because of the tendency to cause eschar formation at the site of infusion, even without extravasation.

The adrenal corticoids are useful in restoration of proper hemodynamics when other measures fail. Some² think that they have a direct action on the endotoxins but this has not been adequately proven. It is felt that they should be used, but conservatively since they may also lessen the hosts response to inflammation, which is a basic defense against infection. Hydrocortisone specifically is the best preparation since intravenous use is mandatory.

The failure of these patients to respond to the current methods of antibiotic usage

is not surprising. Such a patient in shock will not absorb antibiotics given orally nor intramuscularly but demands early and intensive treatment with carefully selected drugs administered directly into the circulation. Recent work by Poth,³ on the usage of neomycin in low concentration directly into the bowel and peritoneal cavity is becoming more widely accepted. In the future it may be permissible without colostomies but at the present this is not always so.

The surgical management of fecal peritonitis⁴ has as its prime object, to tide the patient over the emergency. This is thought best done by simple closure of the perforated viscus and by doing a proximal colostomy with drainage of abscesses. This is followed later by resection of the diseased portion of the bowel and closure of the colostomy still later.

One must be constantly aware of the many complications of diffuse peritonitis in order to manage them as they arise. Although their treatment will not be discussed here, the more common complications are, abscesses, intestinal obstruction, thrombophlebitis and pneumonia.

Report of a Case

The patient, a 54 year old white man, was brought to the emergency room having been found in a state of collapse in a ditch. He was disoriented but stated he had been in excellent health until the onset of acute abdominal pain without apparent cause. Further history was practically unobtainable.

The physical examination on admission was not too remarkable but within less than an hour the patient's condition deteriorated and he began writhing with abdominal pain. The abdomen was soon boardlike. Rectal examination was not remarkable except for tenderness high in the rectal pouch. On admission X-ray studies revealed free air under the diaphragm and gas in the small bowel.

The preoperative diagnosis was perforated peptic ulcer. A right upper paramedian incision was made and large quantities of fecal material were encountered. Exploration of the stomach, duodenum and small bowel being negative, the incision was carried downward. Further study revealed a

four cm. rent in a sigmoid diverticulum. This was closed and 100 cc. of a 1% solution of neomycin was placed into the bowel and peritoneal cavity.⁴ A transverse colostomy was performed and the abdomen was closed with several drains.

At the end of the operation the patient was in very poor condition and was treated with whole blood and continuous intravenous levophed. In spite of this he was still in shock, 24 hours later, and 100 mgm of hydrocortisone was given intravenously. At the end of 36 hours his blood pressure was above critical levels. His temperature remained at about 105° for three days in spite of ice water sponges, aspirin and intravenous use of chloromycetin and penicillin. His temperature then continued to spike 104° for 15 days. At this time his condition had improved markedly and he was taken to surgery for debridement of large eschars on all extremities which had complicated the use of levophed. Approximately three days later the areas were grafted with good results.

The patient continued to do well although his course was febrile and on the thirtieth day developed an ileofemoral thrombophlebitis. This responded well to hot soaks, elevation, anticoagulants and paravertebral sympathetic blocks. He then began to have more fever and developed tenderness in the left upper quadrant. On the forty-sixth day a subphrenic abscess was drained. Following this he did well and was discharged in two weeks.

Three months later he was readmitted and a resection of the diseased sigmoid was performed. Recovery was successful and he was discharged in 12 days.

The colostomy was closed one month after this and the patient was discharged from the hospital with good bowel function. He has been followed on our Out Patient Department and is doing excellently at the present time.

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CLINICAL PATHOLOGICAL CONFERENCE

L. L. CONRAD, M.D. and WILLIAM E. JAKUES, M.D.

Case Presentation

Patient: L. T., 13 year white school boy.

Chief Complaints: Rash and tired feeling for two months; anorexia and fever for three weeks.

Present Illness: This patient was apparently in good health until late summer when he began to feel tired all the time and noted that his face seemed to be "sunburned," especially across his cheeks and the bridge of his nose. Various ointments and salves did no good and the "rash" gradually spread to involve the forehead and ears. This rash was described as discrete erythematous macules which later became scaly and sometimes crusted. Easy fatigability and moderate anorexia were also noted. One month after the onset of these symptoms he complained of pain and stiffness of the shoulders and legs which lasted for several days. For three weeks before admission he was noted to have fever ranging between 101° and 102° F. About two weeks before admission the rash began spreading to the arms and to the back. He then began to have six or seven bowel movements daily, as well as abdominal pain, vomiting, and foul breath. He had lost 23 pounds since the onset of symptoms.

Past History: The patient had had whooping cough, measles, mumps, and chicken pox. He had a tonsillectomy and adenoidectomy at age five. He was said to have a very severe reaction to tetanus antitoxin given following a laceration at age three.

Family History: The patient's father, mother, and four siblings were living and well and none of them had any symptoms similar to the patient. The patient had had contact as an infant with a cousin who had tuberculosis.

First Admission: Upon first hospital admission, physical examination revealed little except for the skin rash, slight cervical and

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inguinal lymphadenopathy and an appearance of being acutely ill. Repeated urinalyses were essentially negative except for a trace of albumin on one occasion, an occasional cast, and up to four WBC/h.p.f. Hb. was 14 mg.%. There were 7800 WBC's with 69 N, 26 L, 5 M. Sedimentation rate ranged above 30 mm./hr. A blood culture was negative. X-rays of the chest revealed no evident cardiac or pulmonary pathology. An electrocardiogram showed "partial heart block with non-specific primary T-wave changes." Serology was negative. The patient was kept in a dark room and was given calamine lotion and special ointment. The skin lesions improved a great deal and "were hardly noticeable" on discharge. He was also given multiple vitamin preparations and for two weeks received testosterone propionate, 25 mg. every other day. He was also given 0.1 gm. quinine three times daily for four days. A second electrocardiogram

(several weeks later) showed that the partial heart block was no longer present. The patient was discharged from the hospital, felt very well, returned to school (an "A" student) and was asymptomatic until mid-summer. At this time he took a job with a house painter and worked about six days, but quit because the sun made him feel weak and he began to have "sunburn of his face, neck, and ears." He felt better for a few days but then began to feel lethargic again. He had increasing anorexia and lost 20 lbs. within the next six weeks. He was taking only liquids and light foods and was readmitted to the hospital, approximately one year after the onset of his first symptoms.

At this *second admission* temperature was 99°, P. 80, R. 25, and BP 120/75. He appeared chronically ill. The tongue was coated and dirty gray. The skin was warm, moist, and pale. There were a few atrophic scars over the arms. Over the bridge of the nose and on both cheeks were confluent erythematous irregularly outlined areas, which blanched on pressure. There were several large cervical nodes which were nontender, smooth, and movable. A systolic murmur was heard in the second left interspace at the sternal margin. The PMI was clearly seen and felt in the MCL in the fifth left interspace. In this region a rasping sound was heard between the first and second heart sounds. The liver was palpable three fingerbreadths below the right costal margin. No other viscera or masses were palpable. The remainder of the physical examination was not remarkable. Repeated urinalyses were all within normal limits except for rare hyalin casts. A urine study was negative for porphyrin. Hb. was 12 gm.%, WBC's 6000 with 64% polys, 3% stabs, 34% lymphocytes, and 2% monos. Numerous subsequent blood counts revealed essentially the same values. The sedimentation rate varied between 42 and 59 mm./hr. NPN was 24 mg.%. Total protein was 6.8 gm.% with an A/G ratio of 4.2:2.6. Serology was negative. Cephalin flocculation was 2+; thymol turbidity 3.2 units; gamma globulin 1.7 gm.%. On admission the CO₂ combining power and chlorides were normal. Subsequent electrolyte studies were within the normal range. A month later the total pro-

tein was 8.8 gm.% with an A/G ratio of 7.5:1.3. Thymol turbidity was 6.7 units, gamma globulin 1.9 gm.% and cephalin flocculation 1+. On this second admission, x-ray studies revealed marked cardiac enlargement with pulmonary congestion and possible pericardial effusion. Electrocardiograms showed non-specific primary T-wave changes, with low voltage. During the first eight weeks of this hospitalization the temperature ranged from 100° to 104° with occasional remissions to normal lasting three or four days. During his last four weeks the temperature curve was relatively normal with rare spikes to 102°. In general, the pulse curve paralleled the temperature curve. ACTH was given with some symptomatic response including improvement of appetite. ACTH was stopped when the patient became afebrile. Sedimentation rates remained high, although some improvement of the skin lesions was noted. He was discharged three months after this second admission.

About one month later the patient developed a sore throat and was treated with aureomycin, penicillin, and a sulfonamide by his local physician. He developed "hives" on his lower extremities and sores in his mouth. Anorexia developed and for one week before his *third admission* he had eaten very little. Physical examination on this *third admission* revealed T. 102°, P. 100, R. 24, BP 125/80. The patient was described as chronically ill and lethargic. The skin was dry and pale except for the previously described erythematous areas of the face. The eyelids were swollen and erythematous. The conjunctivae were injected. The pupils were not remarkable and reacted to light and accommodation. The fundi were said to be unremarkable. The ears, nose, and throat were not remarkable except that there were "swollen aphthous ulcers of the buccal mucous membrane." The tongue was coated and the pharynx was injected. There were "large cervical lymph nodes." The heart was moderately enlarged with an apical systolic murmur. The liver was palpable three fingerbreadths below the right costal margin and the spleen was questionably palpable. Extremities were essentially normal except for scattered rash over the

lower legs. Neurological findings were said to be physiological. The patient was moderately dehydrated and was given intravenous fluids. Three days after admission a pericardial friction rub was noted and pericardial effusion was later suspected by the roentgenologist. An electrocardiogram showed low voltage "compatible with pericardial effusion." The patient was given ACTH (IM and IV) as well as IV vitamins and aureomycin. During the next week he developed moist rales in both lung bases and later generalized edema. He developed increasing edema, became comatose, and expired on the tenth hospital day of his third admission. During this admission his temperature remained between 100° and 102° until the day of death when it rose to 105°. On his final admission a urinalysis was reported: pH 6.0, sp. gr. 1.032, protein 4+, sugar 1+, acetone negative, and 5-10 WBC's/h.p.f. and innumerable coarsely granular casts. The white blood count was 9500 with 86% neutrophils (19% stabs), 13% lymphocytes, and 1 monocyte. Three days after admission the white count was 4000 with 79% neutrophils, 18% lymphocytes and 3% monocytes. An absolute eosinophil count revealed no eosinophils. The Hb. was 11 gm.% on the day of admission and 9 gm.% three days later. On admission the NPN was 32 mg.%, serum chloride 104 mEq/l sodium 140 mEq/l and potassium 4.5 mEq/l.

Differential Diagnosis

Dr. Conrad: The clinical picture presented is one in which many different organ systems including the skin, heart, and joints are involved, and the illness is terminated by either congestive heart failure or uremia. The illness is of at least a year's duration and has been punctuated by intermittent episodes of fever.

With this story, the primary diagnosis should be disseminated lupus erythematosus. The clinical picture seems to be characteristic and I will mention only a few other possibilities in the way of differential diagnosis. Dermatomyositis should probably be considered particularly because of the periorbital edema (although it appeared late in the illness) and skin manifestations; how-

ever, dermatomyositis usually is accompanied by weakness of large groups of muscles, and although pericarditis has been reported in association with this disease it seems to be rare.

Rheumatic fever could present many of the same clinical findings including congestive heart failure due to rheumatic carditis as a cause of death; however, the distribution of the skin lesions over the butterfly area seems more characteristic of systemic lupus.

The terminal picture, if it represents a renal manifestation would be more common with lupus than with rheumatic fever. Bacterial endocarditis should probably be considered although the appearance of carditis and pericardial friction rub are not common with bacterial endocarditis. Henoch-Schönlein purpura could be responsible for the renal manifestations but the skin lesions are not characteristic of this disorder. Periarthritis can produce cardiac and renal manifestations, but in the acute form is many times accompanied by hypertension and leukocytosis, neither of which occurred during the illness. As a matter of fact, the terminal leukopenia and the absence of hypertension are highly suggestive of lupus.

As to the special manifestations, lymphadenopathy is common in disseminated lupus. Electrocardiographic changes, including a prolonged PR interval (partial heart block) and the appearance of pericarditis with or without effusion are common in disseminated lupus.

We are not given enough information to determine whether or not the patient actually expired in congestive heart failure or because of a developing renal lesion, either of which would be frequent terminal manifestations of disseminated lupus.

Incidentally, when pericardial effusion occurs during the course of disseminating lupus it usually is not sufficient to cause cardiac tamponade so that this probably does not represent a factor in the patient's death.

There are a few common manifestations of lupus which are not present in this particular patient. There is usually an altera-

tion in serum globulin with increased concentration of globulin in plasma; however, the gamma globulin as reported is elevated, since by salting out techniques its concentration is normally .75 to 1.25 gm.%. The serologic test for syphilis is often positive in lupus and this is probably due to the alterations in serum proteins which occur commonly.

In substance then, I believe that the patient must certainly represent a case of systemic lupus erythematosus, the principal lesions being cardiac and perhaps renal.

Q. Why could not the diagnosis be rheumatic fever and rheumatic carditis?

A. The skin lesion in its distribution would be against a diagnosis of rheumatic fever. In addition, the entire illness seems to be one in which the relapses are related to exposure to sunlight. This is very common in disseminated lupus, but so far as I know photosensitivity of this order does not occur in rheumatic fever.

In rheumatic carditis there is more frequently an increased voltage on the electrocardiogram although pericardial effusion may alter this sign. The terminal illness, if it be uremic in nature, makes lupus more probable.

Q. What is the relationship of chronic discoid lupus to disseminated lupus?

A. The dermatologists report instances in which chronic discoid lupus has terminated in disseminated lupus; however, in general chronic discoid lupus is a benign disease, and one wonders whether or not the cases which are reported to terminate in systemic lupus weren't disseminated to start with.

Q. I wonder whether or not blood had been examined for lupus cells?

A. I assume that lupus cell preparations had been obtained and that the report has been intentionally left out of the protocol by the pathologist. They probably were positive; however, even though they were negative the clinical picture is quite characteristic of lupus. I would be surprised if the preparations were negative, but I would

not change my diagnosis if they were negative.

Pathological Discussion

Dr. Jaques: As part of CPCmanship, certain information was withheld from the clinical protocol. A lupus erythematosus preparation was performed and this was positive.

At autopsy there was generalized edema involving the extremities, as well as the face, especially in the periorbital areas. The serous cavities likewise contained large amounts of fluid. The peritoneum contained 500 ml., the right pleural cavity 1 liter, and the left pleural cavity 1 liter, while the pericardial sac contained 1-1.5 liters. The serous membranes likewise showed a few shaggy areas where fibrin was demonstrated. This was particularly noted in the pericardial sac.

The heart was enlarged, weighing 440 gm. and revealed slight right ventricular hypertrophy. The right ventricular myocardium averaged 7 mm. in thickness. The valves on the right side of the heart were not remarkable, while the mitral valve revealed slight thickening at the base of the valve. No definite "pocket lesions" were noted and there was no definite lesion suggestive of Libman-Sacks disease. The myocardium was slightly pale and flabby in consistency.

The lungs were enlarged, showed moderate atelectasis, and on cut surface were beefy red with little air. They also displayed a fine reddish-gray nodularity.

The spleen was enlarged with prominent follicles and the red pulp was congested.

The liver was likewise enlarged, light tan to yellow in color, and generally homogeneous.

The pancreas was not remarkable.

The intestines revealed focal areas of hyperemia, but no ulcerations, lymphoid hyperplasia, or other manifestations were noted.

The adrenals weighed 14 gm. and the cortices were a light tan in color.

The kidneys were enlarged, the right weighing 175 gm. and the left 215 gm. The capsule stripped with ease to reveal a finely granular external surface. On cut surface, there was generally poor corticomedullary demarcation and scattered abscesses were noted throughout the cortical tissue.

There was no lymphadenopathy noted. Permission for examination of the head was not granted.

Microscopic examinations revealed lesions characteristic of lupus erythematosus disseminata. In the heart there was the previously noted fibrinous pericarditis with focal areas of fibrinoid change noted in the collagen of the pericardium. Likewise, in the myocardium there were focal areas of perivascular fibrinoid necrosis. No Aschoff bodies were encountered. There was slight hypertrophy of the fibers of the right ventricle.

The lungs revealed a rather extensive pneumonic process. This varied from areas of acute inflammation to areas of organization.

The spleen revealed moderately prominent white pulp but no definite onion skin hyperplasia of the penicilliary arteries was encountered.

The liver displayed a moderate degree of fatty infiltration. There was no distortion of lobular architecture, however.

The adrenals showed slight lipid depletion and the arterioles in the periadrenal fat exhibited suggestive fibrinoid change.

The kidneys revealed frequent changes in

the glomeruli. Occasionally so-called wire loops were encountered. In other glomeruli, there was proliferation of both endothelial and epithelial cells as well as focal necrotizing glomerulitis. The latter was associated with a polymorphonuclear leukocytic infiltration. Apart from the changes in the glomeruli there was hyaline droplet degeneration of the convoluted tubules and in one section, abscesses were encountered.

A section of a lymph node revealed preservation of architecture. However, scattered "hematoxylin bodies" were noted and there were numerous plasma cells in the lymphoid tissue. No bone marrow was available for microscopic study.

Final Pathologic Diagnoses

Lupus erythematosus disseminata
Anasarca
Pericarditis, fibrinous, non-adhesive
Atelectasis of lungs
Acute bronchopneumonia with organization
Cardiac enlargement, right ventricular hypertrophy
Abscesses of kidneys, multiple
Fatty metamorphosis of liver

This patient, we believe, exhibited the usual findings in lupus erythematosus disseminata. It should be brought out that it is a misnomer to call this one of the so-called collagen diseases. A more rightful term would be connective tissue diseases, since other components than collagen are involved in this process. Notably one finds changes in ground substance as well as in a few instances changes in smooth muscle fibers.

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DIVERTICULA *of the* PERICARDIUM

GERALD WM. McCULLOUGH, M.D.

THE AUTHOR

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Fifty-two cases of diverticulum of the pericardium have been reported since Hart's original report of one found at autopsy in 1837.⁴ Hart described the free communication between a sac containing "fluid" and the pericardium. An excellent review of the literature was presented by Loehr⁶ in 1952, and since then four other cases have been reported.^{1, 2, 7, 8} Two additional cases are reported in this paper. One is unusual in that the patient had a diverticulum and a separate pericardial cyst.

Diverticula of the pericardium are thought to be of two general types: (1) those of true congenital etiology and (2) those secondary to pleuritis, pleuropericarditis, or chronic exudative pericarditis. The congenital diverticula are thought to originate because lacunae which normally form the primitive pericardial coelom fail to unite³ or because the ventral parietal recess persists in the developing embryo.⁵

The latter theory explains the close relationship of diverticula to pericardial cysts. The primitive pericardial coelom terminates in four parietal recesses. The dorsal two form pleuralparietal canals in the embryo; the ventral two form the pericardial coelomic cavities. The ventral parietal recess may be pinched off and left cephalad as the septum transversum moves caudally. It thereby may form a cyst high in the mediastinum, or it may persist and form a diverticulum.

As 22 of the 52 cases were reported from autopsy findings before 1903, the data available are not sufficient to classify them adequately. Apparently no cases were reported between 1903 and 1921. However, since 1921, 30 cases have been reported. Ten of them were true congenital diverticula. Five others were considered to be true congenital diverticula, but the patients were found to have pulmonary tuberculosis also; and in one there was an associated syphilitic aor-

titis. Nine cases were diagnosed by roentgenologic studies alone. The other five cases were considered secondary to (1) pericarditis, (2) pericardial effusion with dilated heart of uncertain etiology, (3) rheumatic carditis with inflammatory diverticulum, (4 and 5) old rheumatic carditis with mitral stenosis.

Diagnosis

The symptoms of diverticulum of the pericardium are generally vague or not present at all. Roentgenologic evidence is usually found accidentally on routine survey chest films. The more common symptoms are substernal pressure and a feeling of fullness with slight dyspnea. Occasionally there will be coughing, dull thoracic pain or tachycardia. Roentgenologic studies can permit a probable diagnosis if one can demonstrate a mass associated with and inseparable from the cardiac silhouette.

The shadow is usually a well-defined, smooth oval one which may change in shape and size during different phases of respiration and different positions of the patient. The density of the mass is usually the same as that of the heart. When the diverticulum is partially emptied, however, some portion of the shadow may be less dense and give the impression of a flaccid sac containing fluid. It may be noted occasionally that the diverticulum pulsates synchronously with the cardiac excursions. Air injections into the pericardial sac and thoracic cavity have been helpful in diagnosis.

The same symptoms and similar roent-

genologic findings are sometimes seen in patients with benign and malignant tumors of the mediastinum. Inflammatory pericardial diverticula may possess special features that help to differentiate them from the true congenital diverticula. They may have some calcification of the cyst's border, and they tend to become large. The encapsulated fluid is usually thick and serousanguinous and usually casts a denser shadow than that of the true congenital diverticulum. The differential diagnosis by roentgenologic examination is difficult. Similar findings are produced by benign or malignant tumors, such as a dermoid cyst, bronchial cyst, enterogenous cyst, pericardial coelmic cyst, cystic lymphangioma, thymic cyst or thymoma. Primary tumors of the pericardium are extremely rare.

The malignant tumors, whether they are primary or metastatic, are usually multicentric in growth and lead to effusion early. A rapid change in size and shape may be seen in a few weeks, and metastasis may be demonstrated by roentgenogram. Other possibilities that must be considered in the differential diagnosis are parasitic cysts, aneurysms of the aorta and of the sinuses of valsalva, cardiac hypertrophy, anterior mediastinal pleuritic, pericardial fat pads or diaphragmatic hernias. In the 52 cases reported, 27 (52 percent) were in the right cardiophrenic angle. Seven (13 percent) were reported as in the left cardiophrenic angle, 4 (8 percent) were reported as upper anterior, 2 (4 percent) as anterior, and 1 (2 percent) as posterior inferior. The position or location was not mentioned for 11 (21 percent). In the two cases added by this report, one diverticulum was on the right and the other on the upper anterior right. Of the patients reported since 1921, 14 were women, 12 were men and in four the sex was not given. Ages varied from 21 to 63 years among the women and from 20 to 49 years among the men. The mean age of the women was 47, of the men 31.

Report of Cases

The first case^(a) reported in this paper is unusual in that the patient had a congenital diverticulum to the right and in addition had a pericardial cyst on the same side. The

two were in no way connected and there was no apparent stalk of the pericardial cyst to the pericardium, although it was intimately attached. There was no evidence of an inflammatory process.

Case 1. A 58 year old white woman had been advised of a suspected lesion in her chest after a routine mobile roentgenographic examination when she was 53. The patient had a large film taken by her physician, who advised observing a small right cardiophrenic mass since she was then asymptomatic. She continued to be asymptomatic until 10 months before our examination, when she developed a "viral infection of the trachea" which persisted for several weeks. Three months before we saw her, there was evidence of slight enlargement of the mass and she had gradually developed shortness of breath and a sense of fullness in the lower part of her chest. Her history revealed symptoms of disease of the gallbladder of several years' duration. The physical examination revealed B.P. 130/80, pulse 72, respirations 16. She was well developed and well nourished. Nothing abnormal was found on examination of the head, neck, eyes, ears, nose, and throat. The thorax was symmetrical with a slight depression of the sternum; the lungs were clear to auscultation and percussion. There were no murmurs and no enlargement of the heart. The abdomen, extremities, back, skin and nervous system were all essentially normal on examination.

Laboratory data revealed a normal UA and CBC, a negative VDRL and an NPN of 26.9 mg/100 ml. An ECG was reported as being suggestive but not diagnostic of an old, anterior, septal ischemia. A roentgenologic examination of the chest, including PA, right lateral, left anterior oblique, fluoroscopy and esophagoscopy, revealed "a sharply defined soft tissue mass present in the right anterior thorax adjacent to the cardiac shadow, and now separable from it." The mass was lobulated and measured 9 x 5 cm. It was poorly demarcated in the superior portion. In the anterior-posterior and right lateral positions, the mass was sharply demarcated. A few faint pulsations were seen along the right lateral border. They

were thought to be transmitted rather than inherent. No calcifications were identified within it, and it was homogenous without suggestion of areas of increased translucency. The lungs were clear, and the heart was of normal size. No abnormality of the esophagus and esophagogastric hiatal hernia was seen.

On November 1, 1955, an exploratory thoracotomy was done. With the patient under endotracheal nitrous oxide with Pen-thothal and curare, a right periscapular skin incision with removal of the sixth rib was made. Exploration revealed a large pericardial diverticulum 8 x 5 x 4 cm. It had a free 2 cm. communication with the pericardial sac at about the level of the right auricle. The pericardial diverticulum was densely adherent to the lateral parietal pericardium and to the posterior parietal pleura. The pulsations of the mass were synchronous with those of the heart, and diverticulum could be collapsed by compression. There was also a small, separate pericardial cyst 1.5 x 1 x 1 cm, inferior to the diverticulum. The cyst was not compressible. The lung appeared essentially normal on the right, and no other mediastinal masses were noted. The diverticulum was freed from its pericardial attachments to its communication with the normal pericardial cavity. The pericardial cavity was then opened at the base of the neck of the diverticulum and the diverticulum was removed. The cyst was then dissected free and removed. Routine closure of the chest was done, and for drainage a #28 French catheter was brought out through a stab wound in the eighth interspace in the posterior axillary line. Postoperatively, the patient did well and was ambulatory the following day. The tube was removed from the chest cavity on the second day after operation, and the right lung was completely expanded.

Microscopic examination^(b) of the smaller specimen showed sections of a thin, walled cyst. The inner surface of the cyst consisted of a layer of compressed, poorly cellular fibrous tissue covered on its margin by a thin layer of normal mesothelial cells with an occasional deep focal collection of lymphocytes. The outer margin was composed

of fat. The larger specimen showed a "sac-cular structure of fibrous and areolar tissue measuring 9 cm. in length. The neck of the sac, measuring 2.5 cm. in diameter, revealed a wrinkled but smooth and gray glistening tissue resembling pericardium." The final impression was a benign pericardial cyst and a pericardial diverticulum.

Case 2.^(c) G. W., a 47 year old white woman reported that pain in her left shoulder and weakness in her left arm had begun two months before her admission to the hospital. A mass in the right anterior chest of the patient was found on survey chest films. The patient's history revealed that she had had a cyst removed from the cervix in 1945 and a cyst removed from the left breast in 1948 and again in 1950. She was admitted to the hospital March 3, 1951, when her temperature was 98.6, pulse 72, and regular, B.P. 120/84, and respirations 20 and regular. The patient, a mesomorphic white female was in no apparent distress. Her head, neck and E. E. N. T. were essentially normal on examination. Her chest was symmetrical and clear to auscultation and percussion and her abdomen, extremities, back skin and nervous system were essentially normal. UA and CBC were normal, Kahn-negative, Prothrombin time 16 seconds and control 14 seconds. Chest film revealed "a mass in the right antero-cardiophrenic angle 7 cm. in diameter, possible hernia or pericardial cyst."

On March 6, 1951, thoracotomy was done through a standard incision at the seventh intercostal space. Exploration of the pleural cavity revealed an anterior mediastinal cyst, which was dissected free from the pericardium. It was filled with a clear fluid. At the apex of the cyst, a communication by a direct extension was found to the pericardial cavity. No other abnormality was found, and no defect was left in the pericardium. A #30 pezzet's catheter was brought out through the eighth interspace. A routine closure was done. The gross specimen was a smooth gray thin walled watery "cyst". Microscopic examination^(d) revealed strips of poorly-cellular, fibrous fibrous tissue, covered along one margin by a layer of mesothelial cells.

Postoperatively, the patient did very well except for an episode of paroxysmal tachycardia. The catheter was removed on the third day after operation. The patient has done very well since her operation and has remained symptom free.

Summary

A survey of the literature of pericardial diverticula revealed 52 cases, not including the two cases reported here. Brief review is given of etiology, symptoms, diagnosis, roentgenologic aspects, including differential diagnosis, location, and age and sex distribution. Two cases of true pericardial diverticulum are reported. Both of them were in females and both were on the right side. One case was unusual and unique in that both a diverticulum and a pericardial cyst were present. Both patients were operated on with good results. The prognosis of a

patient with a diverticulum is very good whether it is removed or not. However, diverticula are difficult to differentiate from tumors which carry with them a poor prognosis and usually an exploration is indicated.

- (a) Courtesy of A. H. Bell, M.D.
- (b) W. Floyd Keller, M.D., Pathologist
- (c) Courtesy of Edwin Fair, M.D.
- (d) Hugh A. Stout, M.D., Pathologist

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stimulates protein synthesis,
corrects negative nitrogen balance

Increased nitrogen loss, with resulting negative nitrogen balance, occurs in infection, trauma, major surgery, extensive burns, certain endocrine disorders and starvation and emaciation syndromes. The intrinsic control of protein metabolism is lost and a protein "catabolic state" occurs. A patient requiring more than ten days of bedrest usually has had sufficient metabolic insult¹ to precipitate such a "catabolic" phase.

Nilevar (brand of norethandrolone) has been used in patients with varied conditions including hyperthyroidism, poliomyelitis, aplastic anemia, glomerulonephritis, anorexia nervosa and postoperative protein depletion. The patients gained weight and felt better.

It was concluded² that "the drug certainly caused a reversal of rather recalcitrant or progressive catabolic patterns of disease."

Nilevar is unique among anabolic steroids in that androgenic side action is minimal or absent.

The suggested adult dosage is three to five tablets (30 to 50 mg.) daily. For children 1.5 mg. per kilogram of weight is recommended.

G. D. Searle & Co., Chicago 80, Illinois.
Research in the Service of Medicine.

1. Axelrod, A. E.; Beaton, J. R.; Cannon, P. R., and others: Symposium on Protein Metabolism, New York, The National Vitamin Foundation, Incorporated, (March) 1954, p. 100.

2. Proceedings of a Conference on the Clinical Use of Anabolic Agents, Chicago, Illinois, G. D. Searle & Co., April 9, 1956, pp. 32-35.

SEARLE

PRESIDENT'S LETTER



At the recent mid-winter meeting of the A.M.A. in Philadelphia, a resolution was being debated on the floor of the House of Delegates. During the course of the debate, this statement was made, "the American public looks to the A.M.A. for authoritative answers in regard to any medical subject or health measures."

I would like to thoroughly endorse such an idea. With that as a text, I would then like to re-emphasize the importance of the A.M.A. to every practicing physician in the State of Oklahoma. As you very well know, it is the parent medical organization from which all other medical organizations derive their claims to existence. As a parent and as a national organization with over 140,000 members, it stands in an ideal position to speak for all of the medical profession. By that statement, it follows that it behooves each and every doctor to hold his primary allegiance to the parent organization. Thereby the whole working for each and every part, and every part supporting the whole.

In recent years, there has been developing an idea and a philosophy to the effect "that anything old and thoroughly tried and proven" is out-dated; is something to be discarded. This rejection is made under the pretense of progress, or is explained to be a manifestation of modern culture. It may also be exemplified in the studied depreciation of great historical personages, or the radical changes in educational principles, or the sneering attitude towards capital and free enterprise, and lastly by the de-emphasis of fundamental moral and religious teachings. Such ideas have envolved the medical profession, with the creation of various Colleges, Boards, Academies and Special Societies. All of these organizations start out with excellent purposes and objectives, but sooner or later they lose their sense of proportion. They become so important and over emphasized that the parent organization from which they sprang is depreciated, or in some instances completely ignored.

I feel that during these days of social changes, with the public more and more critical of the medical profession, that it behooves each and every one of our profession to "Return to the Rock from Whence you came"—to support and participate in the County, District, State and National bodies of organized medicine in such a manner that they will be our spokesman and we will present a unified front to the public.

John Fleck Burton, M.D.
President

Pension and Profit-Sharing Trusts For Physicians Outlined by A.M.A.

According to a new booklet released by the American Medical Association, it may now be possible for physicians to benefit from pension and profit-sharing trusts by incorporation or by operating as unincorporated associations. The information also covers a myriad of tax questions applicable to the medical profession. Entitled "Federal Income Tax Guide for Physicians," the complete guide will be published soon in the *Journal of the A.M.A.*

C. Joseph Stetler, Director of the A.M.A.'s Law Department points out, however, that the booklet is not an adequate substitute for the services of a personal tax advisor. "If it is helpful in giving physicians a better understanding of their rights and obligations under the Federal income tax law, it will have achieved its purpose," he explained.

As a preview to the booklet, the following information is abstracted regarding the A.M.A. concept on pension and profit-sharing trusts:

Pension and Profit-Sharing Trusts

"Section 401 (a) of the 1954 Internal Revenue Code provides for the qualification of pension and profit-sharing retirement trusts established by employers for the exclusive benefit of their employees. Employers' contributions to such trusts are immediately deductible as employees' compensation. However, employees' income taxes on contributions made on their behalf are postponed until the benefits are received. Furthermore, generous rules apply in computing the tax.

"Tax Advantages.—Pension and profit-sharing retirement plans and trusts have provided a substantial tax advantage to employees, particularly executives, which is unavailable to self-employed persons. For example, even where profits are available to pay executives salary increases and bo-

nuses, personal income taxes may absorb most of the added compensation. However, under a tax-exempt profit-sharing trust the employer's contribution is deductible from his income. As funds accumulate in the trust they may be invested and the income earned is exempt from income tax. The employee is not taxed until his share in the trust is paid out, and then generally it is taxed at lower long-term capital gain rates. Contributions up to an average of 15 per cent of the payroll may be taken by the employer as an income tax deduction. Consequently, a substantial portion of the employer's contributions to a profit-sharing trust is salvaged from money that otherwise would be paid in taxes.

"The Physician's Dilemma.—Physicians practicing independently or as members of a partnership may establish a pension plan or trust (more or less fixed obligations as to contributions) or a profit-sharing trust (contributions only to the extent profits permit) for their employees (assistants, nurses, technicians, and secretaries). But as *employers* they are themselves ineligible to participate in these arrangements.

Sole proprietors and members of partnerships in non-professional occupations can readily change their individual status by incorporation and becoming *employees* of the corporation. Even though they may be controlling stockholders or corporate officers they may participate in qualified pension plans and profit-sharing trusts along with other employees. In the few states where physicians may legally form a corporation for the practice of medicine this option is also available to physicians, but state laws generally bar physicians from the corporate practice of medicine even where ownership of corporate stock and management is held exclusively by physicians.

"Unincorporated Associations.—In order to acquire status as 'employees' some physicians, who previously practiced in medical

partnerships have organized themselves into 'unincorporated associations.' As such they are taxed as corporations (and also individually on compensation received from the association) if the actual characteristics of the organization which they have created substantially conforms to that of a corporation. The term 'corporation' for income tax purposes includes the unincorporated association and it is immaterial whether under state law the members are free from personal liability for the debts of the association as corporate stockholders are generally held to be, or whether members are personally liable for association obligations as partners.

"The Kintner Case.—The use of the unincorporated association as a legal device for conferring the employee status necessary for participation in a Section 401 (a) pension plan was pioneered by Dr. Arthur Kintner through the United States Circuit Court of Appeals (U.S. v. Kintner et ux., 216 Fed. (2d) 418.)

"For many years a group of physicians, including Dr. Kintner, practiced medicine as partners in Montana. They dissolved their partnership in 1948 and executed articles of association with the intention of establishing an unincorporated association, taxable as a corporation, for the practice of medicine. The seven physicians in the group became members of the association. They were employed on a salary basis; Social Security taxes were deducted and paid, and they received no fees. Their office hours and vacations were determined by the association which controlled their time, and they could be discharged by the association. Management was centralized in a board of managers which was constituted similarly to a corporation's board of directors. The practice of medicine by the association was unaffected by any turnover in the physicians whom it employed.

"A pension plan was established for employees of the association which gave the physicians credit for their prior service as partners. The association's contribution to the pension plan for Dr. Kintner's account for 1948 was \$967. The Commissioner of Internal Revenue attempted to tax this

amount to him personally as income. In October, 1954 the United States Court of Appeals for the Ninth Circuit held that the association was taxable as a corporation and that its pension trust was qualified as an exempt employees' pension trust even though Dr. Kintner and the other physicians were included as participants. Consequently the pension contributions were a deductible expense to the association although they were not income to the beneficiaries until distributed. The Court further held that the physicians were entitled to credit as a period of employment for their service as members of the prior partnership.

"Although the Commissioner did not appeal the case to the United States Supreme Court, the Internal Revenue Service nevertheless took the position (Rev. Rul. 56-23) that it would not accept the Kintner case as a precedent in the disposition of other cases involving similar fact situations. However, on October 10, 1957 the Internal Revenue Service reversed its position (T. I. R. -61) to the extent that it agreed to apply the usual tests 'in determining whether a particular organization of doctors or other professional groups has more of the criteria of a corporation than a partnership.' At the same time, the Internal Revenue Service was silent as to that part of the Kintner decision which granted physician employees of the association employment credit for their prior service as partners.

"Advantages and Disadvantages.—For purposes of income tax, an association organized and operated along the lines of a corporation is treated as a corporation. Such associations inherit both the advantages and disadvantages of the corporate form of doing business. Pension conscious physicians engaged in group practice are provided with a mechanism whereby medical fees can be used on a tax deferred basis to provide generous retirement and death benefits. Furthermore, after paying income taxes at the 30 per cent corporate rate instead of the frequently higher personal rates, physicians can accumulate funds for the purchase of equipment or other property or the establishment of cash reserves.

"Another advantage, which applies only

to those who like to increase their charitable contributions beyond the limitation which applies to individuals, is that corporations are allowed to deduct charitable contributions not in excess of the five per cent of taxable income. Contributions in excess of the five per cent limitation may, subject to certain limitations, be carried over to each of the two succeeding taxable years. For example, if the corporation had an excess of charitable contributions in 1957, it could carry over this excess first to 1958 and if not entirely used in that year, then to 1959. Any excess after 1959 would be lost.

"Salaries paid by a corporation are allowable as a deduction only to the extent that they are 'reasonable' in amount. Since income is derived from personal services, ordinarily this should not pose a difficult obstacle even if the bulk of the income is paid out in salaries. Nevertheless a competent tax advisor should be employed to guide any association taxable as a corporation in its salary determinations. Distributions from profits which are not paid as compensation are subject to double taxation; to the association as profits and to the recipient as corporate dividend.

"A corporation is permitted to accumulate a portion of its earned surplus to be used for possible expansion or business reasons. If a corporation allows surplus to accumulate beyond the reasonable need of its business it may be subject to an additional penalty tax. Accumulations of \$60,000 or less are not considered beyond the reasonable need of a corporation but beyond that amount a satisfactory business purpose must be shown.

"An unincorporated association or other organization that has the characteristics of a corporation does not have the option to elect whether it will be taxed as a corporation or considered a partnership for tax purposes. If it meets more of the criteria of a corporation than a partnership, the organization may find itself subject to the corporate tax under disadvantageous circumstances and unprepared for the eventuality. Large medical clinics should re-examine their organization, operations and tax practices in the light of this possibility.

"Ethics of Association Practice.—At its meeting in Philadelphia, the House of Delegates of the American Medical Association on December 5, 1957 clarified its position regarding the ethical propriety of group practice. A resolution was adopted which not only recognizes the propriety of group medical practice through unincorporated associations but corporate medical practice as well, where it is permitted by law and exists under the exclusive ownership and management of physicians. The resolution reads:

"Whereas, It has been found by experience that physicians practicing as a partnership, association or as members of other lawful group arrangements can preserve the physician-patient relationship, insuring that medical responsibility lies in the hands of the patient's own doctor and not in the hands of an unlicensed person or entity; and

"Whereas, The ethical principles of the A.M.A. apply to the individual physician whether he practices alone or with a group; now therefore be it

"RESOLVED, That the House of Delegates affirm that it is within the limits of ethical propriety for physicians to join together as partnerships, associations or other lawful groups provided that the ownership and management of the affairs thereof remains in the hands of licensed physicians."

Conclusion.—Physicians who are interested in the advantages of a corporation, but who do not consider medical practice through an unincorporated association feasible because of local or other reasons, may find it practical to form a corporation for the ownership of laboratory and x-ray facilities, etc., or a medical office building. Such corporations may employ non-professional personnel in connection with these facilities and sell services to the medical partnership at a reasonable profit. Whether the advantages of the corporation are sought solely in this limited area or on a broader basis as it may apply to group medical practice, it must be remembered that the legal and tax involvements or corporations and unincorporated associations are intricate. They should be utilized in group medical practice only if the financial advantages are clearly persuasive and will not interfere with traditional physician-patient relationships, and then only upon the advice of competent legal and tax counsel.

Sears-Roebuck Foundation Announces New Project

A new project in the health field has been announced by the Sears-Roebuck Foundation. In contrast to the old program which provided financial aid to physicians, the new program offers guidance to small communities in the planning and construction of medical practice units. Under the new program, a small community may successfully compete for the services of a physician by providing a medical facility equal to those found in the cities.

The original Sears program had the same physician-distribution goal as the new one, but offered unsecured loans to physicians rather than advisory aid to the community. A federal ruling against the chairtable classification of the Sears funds necessitated the changeover.

To receive Sears aid in the planning of a medical practice unit, a community must first make application to the state medical association involved. The application is then approved or disapproved by the association and forwarded to the Sears-Roebuck Foundation. If further approved, a representative of the Foundation visits the community for further investigation.

The Foundation is prepared to provide the following to any community chosen to participate in this program:

1. Assist in conducting an economic survey of community to see if the area can financially support a doctor.
2. Consultation and advice on fund raising and organizing the community.
3. Complete blueprints and building specifications on the medical center or advise on remodeling depending on which is most feasible.
4. These services along with the A.M.A. and the Medical Advisory Board of the Foundation to aid in obtaining the doctor.

Arrangements have been made with an architect to provide plans and specifications for an economical and functional medical center which is adaptable to local building materials. This plan incorporates every

President Invites Russia To Pool Medical Efforts

President Eisenhower wants Russia to join with the U.S. and other nations in a worldwide, cooperative effort to promote medical research and the control of diseases. In his State of the Union message, the President issued an open invitation to the Soviet to participate in the pooling of research skills to learn more about "diseases that are the common enemy of all mortals—such as cancer and heart disease." He also asked Russia to join in the campaign now under way, through World Health Organization, "to eradicate from the face of the earth that age-old scourge of mankind: malaria."

The President said: "If people can get together on such projects, is it not possible that we could then go on to a full-scale cooperative program of Science of Peace? . . . A program of Science for Peace might provide a means of funneling into one place the results of research from scientists everywhere and from there making it available to all parts of the world."

Mr. Eisenhower did not offer any framework around which to build the new program, presumably leaving the next step to Russia. His message did not mention any specific health objectives in domestic legislation, but he said subsequent messages would take up subjects not covered.

necessary modern feature and is furthermore designed to simplify the actual work by an efficient office arrangement.

The medical centers will be designed to provide out-patient service where needed and can be easily expanded from a one to a two physician unit. The cost of this building, fully equipped except for examining tables, x-ray, and waiting room chairs, ranges from \$12,000 to \$25,000. The Foundation will also provide architectural advice on remodeling if the buildings are attractive and suitable for such.

Any community that is willing to help itself and attempt to raise its own funds will receive strong consideration. Application forms may be obtained from the Oklahoma State Medical Association Office.

Educational Council For Foreign Medical Graduates Opens

After almost three years of planning, the Educational Council for Foreign Medical Graduates opened its doors recently at 1710 Orrington Avenue, Evanston, Illinois.

The Council will distribute to foreign medical graduates around the world authentic information regarding the opportunities, difficulties and pit-falls involved in coming to the U. S. on an exchange visitor or exchange student visa in order to take training as an intern or resident in a U. S. hospital, or coming on an immigrant visa with the hope of becoming licensed to practice.

It will make available to properly qualified foreign medical graduates while still in their own country a means of obtaining ECFMG certification (a) to the effect that their educational credentials have been checked and found meeting minimal standards (18 years of formal education, including at least four years in a bona fide medical school), (b) that the command of English has been tested and found adequate for assuming an internship in an American hospital, (c) that the general knowledge of medicine as evidenced by passing of the American Medical Qualification Examination is adequate for assuming an internship in an American hospital.

It will provide hospitals, state licensing boards, and specialty boards which the foreign medical graduate designates, the results of the three-way screening available.

It has also been pointed out that the Council will not serve as a placement agency either for interns or residents. Placement arrangements must be made by foreign medical graduate directly with the hospital of his choice.

It will not attempt to evaluate the teaching program or inspect or approve any foreign medical school. Its program is based not upon evaluating the school from which the candidate graduated but upon evaluating the professional competence of the individual.

It will not act as an intercessor for foreign

medical graduates having problems under discussion by state boards of medical licensure or specialty boards. If the foreign medical graduate asks that the results of his three-way screening be sent to a designated board this will be done, but the ECFMG has no right and no desire to review the decisions of the properly constituted state licensing boards and American specialty boards.

Sponsors of the new agency are the American Hospital Association, the American Medical Association, the Association of American Medical Colleges and the Federation of State Medical Boards of the United States. Providing funds to support it through the first two years of its existence are the sponsoring agencies and the Kellogg Foundation, and the Rockefeller Foundation.

The ECFMG has been legally incorporated in the State of Illinois and is operating in the first year of its provisional approval as a tax exempt organization under Section 501 (c) (3) of the *Internal Revenue Code of 1954*. The ten-member Board of Trustees includes two representatives from each of the four sponsoring agencies and two representing the public at large (one named by the Department of Defense, the other by the Department of Health, Education and Welfare). The President of the Board of Trustees is Doctor J. Murray Kinsman, Dean of the University of Louisville School of Medicine. The Executive Director is Doctor Dean F. Smiley, former secretary of the Association of American Medical Colleges.

The ECFMG's Examination Committee will select the items for two examinations a year from the National Board of Medical Examiner's pool of questions. The National Board of Medical Examiners will use as many of its 50 presently constituted U.S. examination centers as will be required and will establish examination centers abroad in numbers as found required to meet the need.

The National Board of Medical Examiners will proctor the examination, score and analyze the results, and turn them over to the ECFMG's Examination Committee for final evaluation and action.

Foreign medical graduates already in this

country will be billed for \$50 covering the cost of three-way screening. This will include \$15 for the evaluation of credentials and \$35 for the American Medical Qualifications Examination.

Foreign medical graduates abroad will be billed the \$50 only if and when they pass the screening, receive a position in an American hospital or are otherwise earning American dollars.

American hospitals receiving screened candidates will be billed \$75 for each such candidate accepted.

The translation, interpretations and evaluation of credentials has already begun by the Council and the first American Medical Qualifications Examination for foreign medical graduates already in this country is set for February or March, 1958. The target for the second American Medical Qualification Examination for foreign medical graduates both here and abroad is set for August or September, 1958.

New Appointments Made To National Advisory Committee To Selective Service

President Eisenhower has appointed five new members of the National Advisory Committee to Selective Service on the Selection of Physicians, Dentists and Allied Specialists to replace members who have resigned.

In addition to Elmer Hess, M.D., Chairman, of Erie, Pennsylvania and Harold W. Oppice, D.D.S., of Chicago, Illinois, the following were appointed: Mary Louise Gloechner, M.D., Conshocken, Pennsylvania; Frances Graff, R.N., Grand Rapids, Michigan; William B. Walsh, M.D., Washington, D.C.; George Otis Whitecotton, M.D., Oakland, California, and Franklin Yoder, M.D., Cheyenne, Wyoming.

This same membership has been announced by Gordon Gray, Director of Defense Mobilization, as the Health Resources Advisory Committee to the Office of Defense Mobilization, Executive Office of the President.

Pediatric Surgery, Radiology, Pathology Symposium To Be Held March 14-15

The Fourth Annual Combined Symposium, sponsored by Oklahoma Association of Pathologists, Oklahoma Association of Radiologists, and Oklahoma Chapter, American College of Surgeons will be held March 14-15 in the Auditorium of the Medical Center.

Guest speakers for the symposium are: Donald B. Effler, M.D., Chief, Thoracic Surgery Section, Cleveland Clinic, Cleveland, Ohio; Rogert E. Gross, M.D., Surgeon-in-Chief, The Children's Hospital, Boston, Massachusetts; John W. Hope, M.D., Director, Department of Radiology, The Children's Hospital, Philadelphia, Pennsylvania; Benjamin H. Landing, M.D., Director, Department of Pathology, The Children's Hospital, Cincinnati, Ohio; Theodore C. Panos, M.D., Professor of Pediatrics, University of Arkansas, Medical Center, Little Rock, Arkansas; Edgar J. Poth, M.D., Professor of Surgery, University of Texas, Medical Branch, Galveston, Texas; William L. Riker, M.D., Associate Professor of Surgery, Children's Memorial Hospital, Chicago, Illinois; Robert M. Smith, M.D., Assistant Clinical Professor of Anesthesia, Harvard University Medical School, Boston, Massachusetts and Ovar Swenson, M.D., Surgeon-in Chief, The Boston Floating Hospital For Infants and Children, Boston, Massachusetts.

The symposium opens with registration at 8:00 a.m. on Friday, March 14 and the program continues until 4:30 p.m. A dinner-dance will be held at 7:00 p.m. on Friday evening in the Venetian Room, Skirvin Tower Hotel. The meeting on Saturday will open at 8:30 a.m. and continues until 4:30 p.m.

PHS Reports on Poliomyelitis

A Public Health Service round-up on poliomyelitis statistics for 1957 shows 5,894 cases (all types) compared with 15,400 in 1956 and 29,270 in 1955.

VA Hospital To Host Internal Medicine Conference

The Oklahoma City VA Hospital will be host to a VA Internal Medicine Conference for an eight-state area on February 17-18, 1958.

All physicians are welcome to attend the scientific sessions which will be held in the Auditorium of the VA Hospital. All day February 17 and the afternoon of February 18 will be devoted to presentation of papers and panel discussions. The morning of February 18 will feature case presentations and ward rounds. Participants in the Conference and their topics include: Wesley Spink, M.D., Professor of Medicine, University of Minnesota, "The Use of Adrenocortical Steroids in Infectious Diseases;" Franz J. Ingelfinger, Chief, Gastroenterology Section, Massachusetts Memorial Hospital, Boston, Massachusetts, "Esophageal Function;" William A. Knight, M.D., Associate Professor of Medicine, St. Louis University, "A Pancreatic Profile: Its Value in the Determination of Pancreatic Function and Disease;" and Joseph H. Holmes, Professor and Head, Laboratory Medicine and Clinical Pathology, University of Colorado Medical Center, "Treatment of Renal Failure."

Also participating will be Richard J. Bing, Chief, Medical Service, St. Louis VA Hospital, "Factors Affecting Coronary Blood Flow;" Benjamin D. Friedman, M.D., Chief, Medical Service, Dallas VA Hospital, "Fenestration of the Semilunar Cusps and 'Functional' Aortic and Pulmonic Valva Insufficiency;" H. D. Bennett, M.D., Chief Medical Service, Houston VA Hospital, "Disappearing Esophageal Varices;" Charles Andrews, M.D., Chief, Medical Service, Kansas City VA Hospital, "Airway Resistance Studies in Normal Subjects;" and Harold Hipp, M.D., Chief, Medical Service, Little Rock VA Hospital, "Initial Myocardial Infarction Among 503 Veterans: A Study of Immediate and Five Year Mortality."

A complete copy of the program may be obtained by writing to Director, Professional Services, VA Hospital, Oklahoma City, Oklahoma. There will be no registration fee.

American Medical Association Drafts New Law To Cut Poison Deaths

After a 15 months' study, the Committee on Toxicology of the American Medical Association announced January 29 it has formulated a broad and encompassing model law for the precautionary labeling of hazardous substances in commercial, household, and industrial chemical products.

Speaking before the Section on Food, Drug & Cosmetic Law of the New York Bar Association today, Bernard E. Conley, Ph.D., Chicago, secretary of the A.M.A. committee, said the proposed legislation is intended as a model for uniform laws to require declaration of hazardous ingredients and warning statements on the label and in the accompanying literature of chemical products used in the home and elsewhere.

"The proposed model law," Conley said, "was drafted after an exhaustive review of existing statutes revealed a hodge-podge of local regulations for the labeling of chemicals."

The law is directed against those hazardous substances defined as toxic, irritating, sensitizing, corrosive, flammable, explosive, or radioactive under customary or reasonably and anticipated conditions of handling and use.

The law, as drafted by the A.M.A. committee headed by Torald Sollman, M.D., Cleveland, Ohio, would:

1. Require the labeling of all chemical products containing hazardous substances which are not now regulated.
2. Require the same labeling standards to apply to chemicals for export as those for domestic consumption, thereby obviating the common complaint that less-than-standard products are sold to foreign customers.
3. Prohibit re-use of food and drug containers bearing their original labels.
4. Require identification and warnings for strongly sensitizing chemicals which cause allergic or inflammatory reactions in living tissue on contact.

Conley said a significant departure in

drafting the new law was deletion of the word "poison" from the bill's provisions. This decision was reached, he said, after surveys showed a wide variation in existing legal limits for poison and a lack of agreement among scientists on a definition of the term.

"The A.M.A. committee," he said, "feels that reference standards for toxicity based on animal tests provide a more consistent and reliable index of the poisonous properties of chemicals."

The committee's work had strong support not only from the chemical industry but also from the National Drug Trade Conference and the American Public Health Association.

Conley told the bar association that inadequate labeling of potentially harmful chemicals has been a major handicap to a successful attack on the problem of accidental poisoning.

"Lack of information about habardous ingredients in certain emergencies," he said, "may enhance the gravity by complicating or delaying treatment."

The A.M.A. official said the latest mortality statistics show that 1,431 persons died from accidental overexposure to packaged chemicals in 1955. "One-quarter of these fatal accidental poisonings by liquid and solid substances occurred in pre-school age children and over 80 per cent occurred in the home. Non-fatal poisonings are estimated to be 100 to 150 times the number of fatalities," he said, adding:

"And these are impressive statistics for a cause of injury and death which is considered to be largely preventable."

Conley said that while tremendous strides have been made in recent years in reducing mortality from infectious diseases, no comparable improvements have occurred in the prevention of accidental poisonings.

While children are the most frequent victims, the fault of negligence does not necessarily rest at the doorstep of the parents, Conley added.

"Most of the children who take poison are active and curious," he said, "most of the substances ingested by them are easily

Ways and Means Committee Opens Hearing on Tax Changes

The House Ways and Means Committee is embarked on a month-long series of hearings pointed toward a revision of tax laws for, as Chairman Mills described it, "the ultimate benefit of all of our people." The Jenkins-Keough bill will figure prominently in the hearings. Witnesses for the American Thrift Assembly, of which the American Medical Association is a member, will testify, and the A.M.A. will also file its own statement.

The Jenkins-Keough bill, long supported by the medical profession, would permit the self-employed to defer tax payments on a portion of their income if put into retirement plans. Income taxes would be paid later, when the money is received back in the form of retirement benefits. As the hearings opened, the committee's new chairman, Rep. Wilbur Mills (D., Ark.) declared:

"Beginning these hearings as we do confronted with the harsh realities of Soviet technological and scientific advances, we are all aware that perhaps the most important weapon in the arsenal of freedom is found in our federal internal revenue system. Our tax system provides the funds not only for the shield of defense but for the sword of retaliatory power which protects the free world. To assure the continued effectiveness of our tax system and to maintain the continued confidence of our people in it, we must see to it that the objectives outlined by the late chairman (Rep. Jere Cooper) for these hearings are attained. They are objectives which require continuing study and effort not only from the tax committees of Congress and the executive department but the interested public as well. I am sure that we will receive a great fund of information from the witnesses appearing here, which can lead to revision of our tax laws to the ultimate benefit of all of our people."

accessible. Even the parents failed to realize that a number of common household substances were poisonous until after the accident occurred. The model law will help parents become more aware of the hazards and thereby reduce fatalities."



PHILIP L. WHITE, M.D., shown above, will be guest speaker for the Oklahoma Dietetic Association Convention.

Oklahoma Dietetic Association To Hold Annual Convention

The Twentieth Annual Convention of the Oklahoma Dietetic Association will be held in the Zebra Room of the Municipal Auditorium, February 21 and 22. An interesting program and exhibits have been planned for the meeting.

Featured speaker for the convention will be Philip L. White, M.D., Secretary of the Council on Foods and Nutrition of the American Medical Association. Doctor White, formerly a research associate in the Department of Nutrition at Harvard, has also been a nutrition consultant with the Peruvian Ministry of Public Health, and a special consultant for the interdepartmental committee on Nutrition for National defense.

The meeting will be highlighted by a dinner dance in the Persian Room, Skirvin Tower on Saturday evening, the 22nd.

Annual Washington Birthday Clinic To Be Held

The twenty-fifth Annual Washington Birthday Clinic of the Oklahoma City Internists' Association will be held in the Biltmore Hotel Saturday, February 22.

The morning session will begin with registration at 9:00 a.m. One Enid physician and 14 Oklahoma City physicians will participate in the program.

Luncheon will be served in the East Room of the Biltmore Hotel at 12:30 p.m. and the meeting will reconvene at 1:30 p.m. A complete program and list of the speakers may be found listed under "Coming Meetings" in this issue of *The Journal*.

International College Of Surgeons To Meet March 9-14 in Los Angeles

The 11th biennial International Congress of the International College of Surgeons will be held in conjunction with the 23rd annual Congress of the United States and Canadian Sections (North American Federation) in Los Angeles, March 9-14.

An innovation of the meeting will be a surgical emergencies panel to which members of the American Academy of General Practice are invited. Ross T. McIntire, M.D., of Chicago, executive director of the International College of Surgeons and former surgeon general of the U.S. Navy, will be the moderator.

Participants in the panel will be: George F. Lull, M.D., of Chicago, secretary of the American Medical Association; Claude S. Beck, M.D., of Cleveland; Winchell McK. Craig, M.D., and Gershom Thompson, M.D., of the Mayo Clinic, Rochester, Minnesota; Neal Owens, M.D., of New Orleans; Edward L. Compere, M.D., and Philip Thorek, M.D., of Chicago.

The scientific program to be presented in the Ambassador Hotel, will consist of general assembly, and sectional meeting presentations of papers, panels and symposia. About 25 outstanding surgeons from 15 foreign countries will give papers in addi-

tion to nearly 400 surgeons from the United States and Canada. A wide range of subjects will be presented in the general sessions, with particular emphasis upon the latest world developments in surgery. The impact of sputnik upon American Medicine will be discussed. Surgical specialties will be covered in 11 sectional programs.

The colorful annual convocation and induction of new members into the College will be the concluding event, and will be held in the Palladium. Raymond B. Allen, M.D., chancellor of the University of California at Los Angeles, will be the speaker. The annual dinner in the Palladium on March 12 will feature entertainment by Bob Hope, Miss Dorothy Kirsten and other theatrical stars.

Jose M. de los Reyes, M.D., of Los Angeles, regent of the International College of Surgeons for Southern California, is Chairman of the Congress; Peter A. Rosi, M.D., of Chicago, Scientific Program Chairman, and J. Norman O'Neill, M.D., of Los Angeles, General Assembly Chairman.

Additional information may be had by writing to Ross T. McIntire, M.D., executive director, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

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Teaming Up For Health

"The best solutions are the ones we work out among ourselves."

This is an underlying idea behind the recent program inaugurated by the Oklahoma Blue Cross and Blue Shield Plans. The program is called "Member Councils." Local businessmen and other citizens in each county will meet periodically with officials of the Oklahoma Blue Cross and Blue Shield Plans to act as an advisory group.

Purposes of the Councils are to (1) keep local businessmen, community leaders, and citizens who are Blue Cross and Blue Shield members informed about the ever-changing health care picture, (2) discuss specific problems that the Plans face, and (3) provide an opportunity for an exchange of

ideas between physicians and hospitals, and representatives of the public. Thus physicians and hospitals will have an opportunity to present their story to the public.

The Plans owe a large part of their success to the unique partnership among the public, hospitals and doctors. Just as hospitals and doctors have a direct voice in the plans through their representative organizations, members will now have the same opportunity to be heard through their own local organizations, Member Councils.

Councils have already been established and are functioning in 40 Oklahoma counties. They will probably be organized in all 77 counties by June, 1958.

These advisory groups will represent virtually every town and city in the state. Each "Council" will include a cross-section of people in each county—industry, merchants, government, schools, farmers, professional people and "Individual" Plans members.

At least two annual meetings of each Council will be held. The initial meetings are designed to formally organize the Councils and elect officers. Each Council will elect a chairman, vice-chairman, secretary, and at least two other executive committee members.

Members are first briefed on the philosophy and organization of Blue Cross and Blue Shield in addition to local, state, and national health care trends. Guest speakers include Plans representatives, who will speak on various phases of the current health care picture, and how they affect local communities.

A.M.A. Membership Grows

At a staff meeting back in 1955, A.M.A. secretary and general manager, Dr. George F. Lull, set a goal of 160,000 members by 1960. His goal has already been exceeded.

As of September 30, all classifications of membership totaled 168,399. This included 145,452 active members, 6,057 associate members, 16,512 service members, 289 affiliate members and 89 honorary members.

Administration Emphasizes Security And Science In Budget

The budget message asks for an immediate \$1.3 billion for Defense Department's research and development programs, and an additional increase of \$2.5 billion for the next fiscal year, starting July 1. It also projects a vast program to improve science teaching and channel capable students in the direction of mathematics and science. Yet, even in the face of competition for mastery of space, Mr. Eisenhower reminds the Congress and the nation that education is not the responsibility of the federal government alone. He says:

"Scientific and research efforts . . . must be expanded. This is a task not only for the Government but also for private industry, foundations, and educational institutions. The Government, on its part, will increase its efforts in this area. Supplemental appropriations for 1958 will be requested for the National Advisory Committee for Aeronautics and the National Science Foundation, as well as the Department of Defense. For 1959, new programs to promote education in science are being recommended and basic research activities are being generally expanded."

Support Withdrawn from Proposed Programs

It is unusual for an administration to withdraw publicly from support of a proposal that has wide political appeal. But Mr. Eisenhower does so in these words:

"Under present conditions, I am not recommending enactment at this time of certain legislation now pending in the Congress for new programs which I have previously advocated. For example, instead of general aid for construction of school rooms, I am now recommending a broad temporary program of aid to education which is largely science-oriented. I am also deferring proposals for some other grant programs and of certain new public works projects.

"I am also making recommendations to reduce some programs, to curtail expansion in others, and to transfer greater responsibility from the federal government to state and local governments or to private individuals or enterprises. All of these recommendations, in addition to being required by sound public policy, will help to hold expenditures in future years to prudent levels. . . .

"As I have repeatedly emphasized, the continued vitality of our federal form of government requires that, to the maximum extent possible, primary responsibility for public programs be shouldered by that level of government most familiar

with local problems and most responsive to them. We must exercise the utmost restraint in assigning new programs and responsibilities to the Federal Government, and we should continuously search out those programs and activities now carried on at the national level that can and should be handled by the States or localities.

"Prudent limitation of Federal activities cannot alone meet the whole problem of over-centralization. The continued strength of our federal system also depends upon reinforcing the administrative and fiscal ability of the States to carry out their responsibilities. . . .

"The initial progress report of the joint Federal-State Action Committee recommends complete transfer of two programs to the States together with the simultaneous relinquishment of a portion of the local telephone service tax which the Federal Government now collects. These programs are vocational education and the construction of waste-treatment facilities. Legislative proposals to carry out these and future recommendations of the Committee will be transmitted to the Congress. . . . The effect of the proposed transfers on expenditures and revenues of the Federal Government will occur beginning in 1960. . . ."

Later, the message withdraws administration support from another proposed program:

"Last year I recommended a program of hospitalization and medical insurance for Government employees. In view of the priority given to recommended pay adjustments, I propose that this health insurance program be postponed."

Long-Range Planning for More State Responsibility

After citing proposed expenditures for labor and welfare activities—\$3.6 billion, or \$200 million more than this year—the President tells specifically how he proposes to withdraw the U.S. from some welfare programs, and at the same time open up new revenue sources so states can take over these operations. He explains:

"A large portion of the expenditures for labor and welfare programs consists of grants-in-aid to States and local governments, and cannot be reduced without changes in basic authorizing legislation. At this time, I am proposing revisions in the legislation governing five of these grant programs which will lead to some small reductions in the Federal budget for the fiscal year 1959, and to some larger reductions in later years. Under these proposals, the proportion or amount of Federal participation would be reduced for schools in federally affected areas, for hospital construction, and for public assistance.

"I am also recommending action on legislation relating to revenues so the States can assume responsibility beginning in 1960, and Federal aid can cease, for vocational education and waste treatment plant construction. Continuing work by the joint Federal-State Action Committee, as well as thoroughgoing reappraisals by Federal agencies on their own initiative, should lead to further recommendations for reducing grant-in-aid programs in future years, with the States assuming more of the responsibility for these activities and themselves collecting more tax revenues to finance them. . . .

"Our technological progress requires a higher level of support for basic scientific research from both private and public sources. It also demands a growing supply of highly trained manpower—scientists, engineers, teachers, and technicians. To this end, I am recommending an expanded program for the National Science Foundation and a new program for the Department of Health, Education, and Welfare. These programs will be closely coordinated."

After outlining the administration's broad plans for improving the teaching of science and for assisting basic researchers through the National Science Foundation, and for subsidizing needy college students through the Department of Health, Education, and Welfare, the President explains one area where it could reduce its educational costs:

"The Federal Government has a responsibility for aiding school districts when it creates serious financial problems for them. It has recognized this responsibility in the past by providing grants to help build and operate schools in districts where enrollment is swelled by Federal activities. Experience with these programs, however, suggests that they should be modified; many of the communities for which grants have been made no longer have problems as acute as those suddenly generated by the migration of workers and families to them during the Korean crisis.

"In view of the continued maintenance of a substantial defense establishment with shifting locations, authority for grants for construction and operation of schools should be extended, but the assistance should be restricted to instances where the Federal personnel both live and work on Federal property. However, grants for operation of schools on behalf of people living on taxable property should be gradually reduced during an adjustment period, and then terminated."

Budget Requests for Health Programs

First column shows amount being spent this fiscal year for major medical programs; second column contains specific requests made of Congress to finance the activities

for the next fiscal year, starting July 1, 1958.

	Estimated Fiscal 1958	Requested for Fiscal 1959
Food and Drug Administration	\$10,554,500	\$10,664,500
Office of Vocational Rehabilitation	52,230,000	56,800,000
Children's Bureau	43,500,000	43,663,000
Public Health Service	565,700,000	522,089,000
Venereal Disease Control	4,415,000	4,400,000
TB Control	7,000,000	5,386,000
Assistance to States	22,592,000	22,889,000
Communicable Disease Control	7,050,000	6,200,000
Sanitary Engineering activities	12,640,000	12,815,000
Grants for Waste Treatment Plants	45,000,000	45,000,000
Hill-Burton	121,200,000	75,000,000
Hospitals and Medical Care	44,399,000	44,309,000
Indian Health activities	40,100,000	40,225,000
Construction of Ind. Health facilities	3,130,000	2,374,000
NIH (Gen'l research and services)	14,026,000	17,742,000
Mental Health activities	39,217,000	37,697,000
Nat'l Heart Institute	35,936,000	34,712,000
Cancer Institute	56,402,000	55,923,000
Dental Health activities	6,430,000	6,293,000
Arthritis & Metabolic Diseases	20,385,000	20,592,000
Allergy and Infectious Diseases	17,400,000	17,497,000
Health Research Facilities	30,000,000	30,000,000
Neurology and Blindness Activities	21,387,000	20,727,000
Nat'l Library of Medicine	1,450,000	1,415,000
Veterans Administration	823,500,000	792,043,000
Outpatient care	79,000,000	75,798,000
Inpatient care	702,000,000	707,100,000
Hospital & Domiciliary Facilities	42,500,000	9,145,000
Atomic Energy Com- mission (Med.)	37,895,000	43,000,000
Civil Defense Administration	3,300,000	18,000,000
St. Elizabeth's (Wash. D.C.)	3,085,800	3,154,000
*Defense Department	370,207,000	359,632,000
Army	167,607,000	153,100,000
Air Force	117,400,000	118,000,000
Navy	85,200,000	88,532,000

*Includes \$76 million both years for civilian Medicare program, but does not include hospital construction or alteration costs.

Union Welfare Funds Challenged

As part of his program of labor legislation, presented to Congress January 23, President Eisenhower proposes that welfare funds, whether administered by the union, the employer or jointly, be required to register and to make annual reports, which could be published. On this the President makes two points.

First, a Commissioner of Labor Reports to be established within the Department of Labor.

Second, Congress to enact legislation "to require the registration and detailed annual reporting . . . with appropriate disclosure, of all plans which provide health, welfare or pension benefits to working men and women . . ."

Mr. Eisenhower made similar recommendations in 1956 and 1957, but no action was taken on them. Failure to register and report on welfare funds would make the union leaders liable to criminal punishment, and the union liable to loss of "all rights or privileges available under federal labor management relations laws." Furthermore, individual members of unions would have the "unequivocal right" to sue in federal or state courts to force labor officials to exercise the "highest degree of responsibility" in handling welfare and other funds entrusted to their care.

In a separate action, Senator Mundt of South Dakota proposes to require that union welfare funds (medical and hospital as well as pension, life, etc.) open their books for inspection by the Treasury Department's Comptroller of Currency. It would prohibit the National Labor Relations Board from acting on the complaint of any labor organization that could not certify that its books, and records, and those of its affiliated labor organizations, as well as its welfare plan, had been examined by the Comptroller. The Comptroller would be required to ascertain if the fund had been investing its money properly, and if its money was being administered for which collected. If, after notification, the union did not discontinue the improper practices, the Comptroller would be authorized to publish a report

New Regulations For Physicians With Medicare Patients

Office for Dependents Medical Care has some new and clarifying regulations dealing with medicare patients and ancillary medical personnel. They are:

Hospital accommodations—Dependents are eligible for semi-private accommodations (two or more beds) and pediatric cases may be handled in wards. For private accommodations, the following should be kept in mind: (1) when this arrangement is believed necessary by the doctor, the patient pays 25 per cent of the difference between the private room fee and the weighted average of semi-private, (2) when the patient or sponsor only insists on private room, the patient pays the full difference, and (3) when the hospital has only private rooms, the medicare patient pays 10 per cent of the daily charge for the room, or the total daily hospital charge, less \$15., whichever is the greater.

Independent ancillary personnel—Nurse anesthetists and physical therapists who work on an independent basis can now be paid direct if (1) the attending physician certifies on form DA-1863 that the services were authorized by him and (2) the amount charged does not exceed the normal charge to the public having an annual income of \$4,500.

Maternity case fees—If pregnancy terminates in premature delivery, the doctor is entitled to full fee if he has rendered continuous antepartum care beginning in the first eight weeks of pregnancy. Should a maternity patient consult a physician in a locality away from that of her attending doctor or clinic, the doctor consulted is entitled to fee for a home or office visit.

on the situation and to make the facts known to the appropriate law enforcement officer if there is evidence of law violation. The bill would remove the tax exemption of any union not meeting requirements, and any union employee found guilty of embezzlement would be subject to a \$5,000 fine or five years imprisonment or both.

Coming Meetings

ANNUAL WASHINGTON BIRTHDAY CLINIC of the OKLAHOMA CITY INTERNISTS' ASSOCIATION

Saturday, February 22, 1958

Biltmore Hotel

PROGRAM

MORNING SESSION

Minard F. Jacobs, M.D.—Presiding

9:00 a.m.—REGISTRATION

10:00 a.m.—CLINICAL APPLICATIONS OF PULMONARY PHYSIOLOGY

James R. Lowell, M.D.

10:25 a.m.—CURRENT STATUS OF SURGICAL DISEASES OF THE HEART

J. Moore Campbell III, M.D.

10:50 a.m.—THE USE OF DIURETICS

Harry F. Singleton, M.D.

11:15 a.m.—COFFEE BREAK

11:30 a.m.—PANEL: IATROGENIC DISEASES

Moderator: W. W. Rucks, Jr., M.D.

James R. Colvert, M.D. (Gastroenterologist)

Robert S. Ellis, M.D. (Allergist)

Moorman Prosser, M.D. (Psychiatrist)

Wann Langston, M.D. (Cardiologist)

12:30 p.m.—LUNCHEON FOR MEMBERS AND GUESTS

East Room—Biltmore Hotel

AFTERNOON SESSION

Bert F. Keltz, M.D.—Presiding

1:30 p.m.—HEPATIC VEIN THROMBOSIS (Budd-Chiari's Syndrome)

James F. Tagge, M.D., Enid, Oklahoma

2:00 p.m.—NEWER DIAGNOSTIC PROCEDURES, MORE OR LESS

Robert F. Redmond, M.D.

2:30 p.m.—PRACTICAL CONSIDERATIONS OF THE AUTONOMIC NERVOUS SYSTEM

Richard W. Payne, M.D.

3:00 p.m.—COFFEE BREAK

3:20 p.m.—CLINICAL PATHOLOGICAL CONFERENCE

Harry A. Daniels, M.D. (Internist)

Clarence Robinson, M.D. (Surgeon)

Rex Kenyon, M.D. (Pathologist)

UNIVERSITY OF OKLAHOMA MEDICAL CENTER Postgraduate Instruction

OPHTHALMOLOGY-OTOLARYNGOLOGY
SYMPOSIUM—March 6 and 7

Sponsored by Oklahoma City Society of Ophthalmology and Otolaryngology

Guest Lecturers:

Joseph H. Haas, M.D., Chicago, Illinois

Herman Semonov, M.D., Beverly Hills, California

OBSTETRICAL-GYNECOLOGICAL SYMPOSIUM—
March 8

Sponsored by the Oklahoma City Obstetrical and Gynecological Society. There will be two prominent guest lecturers.

PEDIATRIC SURGERY, RADIOLOGY,
PATHOLOGY—March 14 and 15

Fourth Annual Combined Symposium

Sponsored by Oklahoma Association of Pathologists, Oklahoma Association of Radiologists, Oklahoma Chapter, American College of Surgeons

Guest Lecturers:

Robert E. Gross, M.D., Surgeon, Boston, Mass.

William L. Riger, M.D., Surgeon, Chicago, Ill.

Orvar Swenson, M.D., Surgeon, Boston, Mass.

John W. Hope, M.D., Radiologist, Philadelphia, Pa.

Also a prominent anesthesiologist and pathologist will be obtained for this program.

BASIC ELECTROCARDIOGRAPHY—
March 31-April 5

This course consists of informal lecture presentations which assume no formal acquaintance with the subject. Laboratory exercises are carried out by the participants with individual help from the instructors. All working materials are furnished. Participants are expected to attend all lectures and laboratory periods and remains the entire time scheduled.

TRAUMA—April 11 and 12

Sponsored by the Regional Committee on Trauma of the American College of Surgeons

OKLAHOMA ASSOCIATION OF HOUSE STAFF
PHYSICIANS—May 23

Two guest lecturers and presentation of original papers by members of the various House Staffs will

highlight this program. Participating hospitals are: Hillcrest Medical Center, Tulsa; St. John's, Tulsa; McBride, Mercy, St. Anthony, University, Veterans Administration and Wesley, Oklahoma City.

The above courses will be held at the University of Oklahoma School of Medicine. For further information write to the Office of Postgraduate Instruction, 801 NE 13th St., Oklahoma City, Oklahoma.

**Postgraduate Division
UNIVERSITY OF OKLAHOMA MEDICAL CENTER
SHORT COURSE SERIES**

Mar. 12—Medicine—Pathogenesis and Treatment of Anemia.

April 9—Anesthesiology—Anesthesia for the Part-Time Anesthetist.

May 14—Pediatrics—Pediatric Allergy.

June 11—Surgery—Surgical Diagnosis and Problem Clinic.

The courses are designed so physicians may attend four hours of formal instruction in the above fields while spending only one-half day from their office. This series is approved for credit by the Oklahoma Academy of General Practice.

Time 3:30 to 8:30 p.m. the second Wednesday of each month.

Place: Room 120, Medical School Building.

Registration: \$3.50 per session; \$25 for the entire series includes dinner, Hospital Cafeteria. Mail registration to office of Postgraduate Instruction.

**HILLCREST MEDICAL CENTER
1653 East 12th St., Tulsa, Okla.**

Lectures in Basic Science Given by Faculty Members of the University of Oklahoma School of Medicine.

Feb. 25—Common Metabolic Pathways, A. T. Bever, Lecturer.

Mar. 11—Anticoagulants, E. G. Larsen, Lecturer.

Mar. 25—Estrogens and androgens, A. T. Bever, Lecturer.

April 9—Adrenal Steroids; Aldosteronism, R. W. Payne, Lecturer.

April 30—Thyroid: Recent Advances in Diagnosis and Treatment, R. W. Payne, Lecturer.

May 13—Pulmonary Function, M. T. Lategola, Lecturer.

May 27—Basic GI Physiology, J. W. H. Smith, Lecturer.

June 10—Physiological Basis of Liver Function Tests, E. G. Larsen, Lecturer.

June 24—Alimentary Reserve: the malabsorption syndrome, J. W. H. Smith, Lecturer.

**Postgraduate Conference
University of Colorado Medical Center
Denver, Colorado
March 13-15, 1958**

EDEMA—ITS PATHOGENESIS AND MANAGEMENT

This three-day postgraduate conference will be devoted to the basic considerations and clinical applications of kidney function, edema, and diuresis. It is designed to present in a comprehensive manner the problems of pathogenesis and management of edema as variously encountered in clinical medicine. Special emphasis will be placed on treatment.

A detailed program and further information may be obtained by writing to: The Office of Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

POSTGRADUATE CONFERENCE

The Temple Division of the University of Texas Postgraduate School of Medicine announces its Sixth Medical and Surgical Conference emphasizing **Cardiac, Pulmonary, and Vascular Diseases** to be held March 3, 4, 5, 1958. The program sponsored by Scott, Sherwood and Brindley Foundation, will be presented in Temple by members of the staff of Scott and White Clinic. Registration forms are available from the office of the Assistant Dean, University of Texas Postgraduate School of Medicine, The Temple Division, Temple, Texas.

POST GRADUATE COURSE ON DISEASES

OF THE CHEST

The Council on Post-graduate Medical Education of the American College of Chest Physicians will sponsor the 11th Annual Post-graduate Course on Diseases of the Chest at the Warwick Hotel, Philadelphia, March 3-7, 1958.

The most recent advances in the diagnosis and treatment of chest diseases—medical and surgical—will be presented. The tuition fee is \$75 including round table luncheons.

Further information may be obtained by writing to the Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, Illinois.

Organization News

Report of Medicare Committee

The following report was submitted to The Journal by Walter E. Brown, M.D., Tulsa, Chairman of the O.S.M.A.'s Medicare Committee.

Public Law 569 became effective on December 7, 1956, and by this authority the government provides medical services for certain dependents of military personnel on active duty. The Oklahoma State Medical Association entered into a contract with the Department of the Defense in November of 1956 for operation of this law in the State of Oklahoma on a *full service basis*.

A schedule of allowances for this State was worked out, using figures obtained from County Medical Society secretaries throughout the State as average in the various counties for certain commonly carried out procedures in the practice of medicine. The actual fees were determined largely by using the relative value point system as published by the Council of the California Medical Association February 12, 1956.

It was also decided that the Blue Shield Plan of Oklahoma would act as fiscal agent in this State, relieving the Medical Association of the cumbersome and costly installation of personnel and equipment for processing the anticipated claims.

The following is an account of the activity of the Medicare program in Oklahoma from December 7, 1956 through December 20, 1957:

Total claims-----	12,535
Total payments-----	\$760,070.89

This averages out as \$61.02 per case. It must be realized that this is not the total physician's fee per case because fees for assistants, consultants, anesthesiologists, and others may be less, but each counts as one physician's claim.

The State Medical Association has no knowledge of the amount paid under this program for hospital claims, inasmuch as the fiscal agent for the hospitals under

Medicare in Oklahoma is Mutual of Omaha, nor does it have a breakdown on the types of cases submitted by physicians, since the Blue Shield form of tabulating prohibits such breakdown except by manual assortment of the IBM cards. Blue Shield is engaged in such a study at the present time to analyze the first year's operation of Medicare.

A Physicians Manual, listing fees for all or most of the medical and surgical procedures which could be anticipated, was distributed by mail to all members of the Oklahoma State Medical Association early in the course of this operation. One aspect of the plan, which was possibly not stressed sufficiently but which is of the utmost importance in its successful prosecution, is stated on page V of the Manual, "The private physician participating in the program will receive the amount established in this local schedule of allowances, or his usual charge, *whichever is less*." To date, the fee schedule has apparently been used overwhelmingly by physicians as a schedule of minimum fees, wherein the intention was that it be used as a schedule of maximum fees. The claims submitted from over the State indicate that in most areas the fees for Medicare cases are considerably in excess of the average fees as listed by the County Medical Society secretaries for the same procedures and greatly higher than the average fees submitted under the Blue Shield Plan. Cooperation of physicians in submitting their usual charges for this income group, more than 80 per cent of whom make less than \$4,000 per year, will help greatly in the successful continuation of Medicare.

By the same token, some of the fees listed turned out to be inadequate and at the time of renegotiation of the contract in June 1957, the fee for tonsillectomy was increased to \$60.00 and the fee for assistant-at-surgery was increased from a straight 10 per cent of the surgeon's fee to a minimum of \$25.00. Other fee alterations are now under consid-

eration for discussion at the time of renegotiation of the contract in June of 1958, and any suggestions from physicians in order that extension of services due them may be made in a more efficient manner are most welcome.

Another problem in the processing of cases is the necessity of returning claim forms which have not been properly completed. This not only delays the payment to the doctor for his services but adds additional burden and cost to the administration of the program. Although it is well recognized that the filling out of forms has come to be an abomination to physicians, it is sincerely requested that Oklahoma doctors submitting claims be more meticulous regarding Medicare forms, because under regulations the claims cannot be processed unless complete information is given.

The Medicare Committee of the Oklahoma State Medical Association is appointed annually by the President of the Association. This Committee meets monthly, and communications regarding Medicare should be directed to the Committee, in care of the State Medical Association at P. O. Box 9696, Oklahoma City.

Social Security Says:

"Your social security taxes pay for these nine programs:

- (a) Unemployment insurance
- (b) Old Age and Survivors Insurance

Public assistance to the needy

- (a) Old-age assistance
- (b) Aid to the needy blind
- (c) Aid to dependent children
- (d) Aid to the permanently and totally disabled

Children's services:

- (a) Maternal and child-health services
- (b) Services for crippled children
- (c) Child-welfare services

In Other Words: In spite of the fact that most of these represent federal grants to state aid, this Social Security program is being sold to you and me as "contributory social insurance."



Spivak To Play For Annual Meeting

Entertainment Committee Chairman J. B. Eskridge III, M.D., announced recently that Charlie Spivak and his orchestra have been signed to play at the President's Inaugural Dinner-Dance, May 6, 1958. This event will highlight the social calendar of the O.S.M.A.'s 52nd Annual Meeting which will be held in Oklahoma City.

Mr. Spivak has had a brilliant career in the music world. In the early part of his rise to popularity, he was associated with such great names as the Dorsey brothers, Glenn Miller, Bob Crosby and Ray Noble. Later, as a free lance trumpeter in radio, he played on the Ford Symphony Hour, Kate Smith and Fred Allen broadcasts. With the encouragement of Glenn Miller, he formed his own band and established himself almost immediately as one of the nation's top flight bandleaders. He has since been honored by Downbeat Magazine as the top sweet band in the country.

"The man who plays the sweetest trumpet in the world" will give his performance in the Persian Room of the Skirvin Tower Hotel. Featured with him will be song stylists Bobbi Bowman and Paul O'Conner.



H. T. Ballantine, M.D., Honored

H. T. Ballantine, M.D., Muskogee physician, was recently honored at the annual installation of officers of the East Central Oklahoma Medical Society held at Western Hills Lodge, Sequoyah State Park. Doctor Ballantine was presented a 50-year pin in recognition of his medical service to Oklahoma. Doctor Ballantine, pictured right above, graduated from Vanderbilt University School of Medicine in 1907 and has practiced in Oklahoma since that time. Presentation of the pin was made by Marvin Elkins, M.D., retiring President of the Society.

Officers installed at the meeting were: Eugene Henry, M.D., President; John Hackler, M.D., vice-president and W. S. Dandridge, M.D., who was re-named as the secretary-treasurer.

Social Security Says:

"There is no provision in the law which permits a refund of social security taxes paid if you do not have enough work under the law to get social security payments."

In Other Words: Your uncollectable "contribution" goes to charity, and not "insurance."

Prepared by the A.M.A.

Have You Heard?

THE LINDLEY HOSPITAL, Duncan, was destroyed by fire, Sunday, December 22. Rebuilding of the hospital, according to E. C. Lindley, M.D., owner of the hospital, is pending a recent proposal for a county hospital.

THOMAS H. HENLEY, M.D., of Fairview, has accepted a four year residency in surgery at the University Hospital School of Medicine beginning July 1.

E. B. THOMASSON, M.D., Duncan, has recently moved into new offices at 919 Walnut in Duncan.

A. C. ROBERSON, M.D., Anadarko physician who has been on military assignment at Barksdale Air Force Base in Louisiana, recently returned to the staff at the Anadarko Clinic.

The Tisdal Hospital in Elk City, which was built in 1924 by the late V. C. Tisdal, M.D., was recently purchased by William G. Husband, M.D., L. V. Baker, Sr., M.D., and L. V. Baker, Jr., M.D. of Elk City. The hospital will operate in the future under the name of Memorial Hospital.

ROY E. WAGGONER, M.D., Stillwater's doctor of longest tenure, has retired. Doctor Waggoner had practiced in Stillwater since May 15, 1926.

W. T. MCCOLLUM, M.D., was guest speaker at the Garfield-Kingfisher County Medical Society meeting, January 22. His subject was "The Treatment of Complications of Myocardial Infarction."

DOCTOR MCCOLLUM also appeared as guest panelist along with JOHN POWERS WOLFF, M.D., of Oklahoma City at the Custer County Medical Society meeting in Clinton. The subject discussed by the panel was "Periphervascular Diseases."



Howard James, left, representative of the Schering Corporation, is shown presenting Executive Secretary, Dick Graham with a map, "Medical America," portraying highlights in the historical development of medicine within the Oklahoma-Texas region. Prepared by Schering as one of an original series, the map is on display in the OSMA office.

New County Officers Are Elected

Listed below are the names of the County Officers* for 1958 which have been submitted to the Oklahoma State Medical Association.

Atoka-Bryan-Coal—Wm. A. Hyde, M.D., Durant; Seal L. Whitley, M.D., Durant.

Beckham—William Leebron, M.D., Elk City; Bernard Horn, M.D., Elk City.

Caddo—H. M. Conners, M.D., Cyril; G. E. Haslam, M.D., Anadarko.

Cherokee-Adair—R. C. Emmett, M.D., Stillwell; Wm. S. Wamack, M.D., Tahlequah.

Cleveland-McClain—Charles A. Smith, M.D., Norman; W. T. Stone, M.D., Purcell.

Comanche-Cotton—W. C. Cole, M.D., Lawton; Robert L. Shore, M.D., Lawton.

Craig-Ottawa—John E. Highland, M.D., Miami; Glen W. Cosby, M.D., Miami.

East Central—Eugene Henry, M.D., Muskogee; W.

S. Dandridge, M.D., Muskogee.

Garfield-Kingfisher—A. F. Dougan, M.D., Enid; Roscoe C. Baker, M.D., Enid.

Garvin—Calvin Bradford, M.D., Lindsay; Hugh H. Monroe, Pauls Valley.

Grady—Jack H. Foertsche, M.D., Chickasha; Seth D. Revere, M.D., Chickasha.

Hughes-Seminole—L. A. S. Johnston, M.D., Holdenville; Royce McDougal, M.D., Holdenville.

Jackson—Fred Becker, M.D., Altus; John Walker, M.D., Altus.

Jefferson—W. A. Heflin, M.D., Ryan; O. J. Hagg, M.D., Waurika.

Kay-Noble—J. T. Terry, M.D., Ponca City; R. H. Moorman, M.D., Blackwell.

Kiowa-Washita—Wilson Mahone, M.D., Hobart; Ralph Phelan, M.D., Hobart.

Lincoln—Harold T. Baugh, M.D., Meeker; C. W. Robertson, M.D., Chandler.

(Continued on Page 101)



Stepped-up performance...

ACHRO

New rapid-acting ACHROMYCIN V Capsules offer more patients consistently high blood levels—at no sacrifice to the broad anti-infective spectrum of ACHROMYCIN Tetracycline, its low incidence of side effects, or its dosage and indications.

The pure, unaltered crystalline tetracycline HCl molecule of ACHROMYCIN, now buffered with citric acid, provides



MYCIN V

Tetracycline HCl Buffered with Citric Acid

prompt and high blood levels, faster broad-spectrum action
...rapidly decisive control of infections. New ACHROMYCIN
V Capsules do not contain sodium.

REMEMBER THE V WHEN SPECIFYING ACHROMYCIN V

CAPSULES: (blue-yellow) 250 mg. tetracycline HCl (buffered with citric acid, 250 mg.); 100 mg. tetracycline HCl (buffered with citric acid, 100 mg.). **ACHROMYCIN V DOSAGE:** Recommended basic oral dosage is 6-7 mg. per lb. body weight per day. In acute, severe infections often encountered in infants and children, the dose should be 12 mg. per lb. body weight per day. Dosage in the average adult should be 1 Gm. divided into four 250 mg. doses.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK
*Reg. U.S. Pat. Off.



APPLICATION FOR SPACE

SCIENTIFIC AND EDUCATIONAL EXHIBIT SECTION

52nd ANNUAL MEETING ★ OKLAHOMA STATE MEDICAL ASSOCIATION
MUNICIPAL AUDITORIUM ★ OKLAHOMA CITY ★ MAY 5, 6, 7, 1958
(Please type or print)

Name of organization or individual requesting space: _____

Please describe your exhibit (75 words maximum - to be used in official program:)

Amount of space required (indicate width in multiples of eight feet): _____ feet.
(All exhibit spaces will be 6 feet deep.)

If you have ever exhibited at an Annual Meeting, give most recent date: _____

Date of application: _____

Applications should be mailed to the Scientific and Educational Exhibits Committee, Oklahoma State Medical Association, Box 9696 Shartel Station, Oklahoma City.

Closing date for filing applications: March 1, 1958. Space is limited and not all applications can be accepted. There will be no charge for space, but each exhibitor is responsible for installation of own exhibit. The Oklahoma State Medical Association assumes no liability for the safety of exhibits. Exhibits will be installed on Sunday, May 4, 1958 and must be removed between 1:00 p.m. and 5:00 p.m. on Wednesday, May 7, 1958.

Edgar J. Poth, M.D. To Speak At Annual Meeting

Edgar J. Poth, M.D., Professor of Surgery at the University of Texas Medical Branch, Galveston, will be one of the outstanding speakers to appear on the scientific program of the Oklahoma State Medical Association Annual Meeting, May 5, 6, and 7, Oklahoma City.

Doctor Poth will speak on the subject of "dumping" as a complication of gastric operations and also on the subject of gastric and duodenal physiology and its relationship to surgery.



AN INVITATION TO EXHIBIT OSMA ANNUAL MEETING

Do you have an idea which you would like to present to other physicians in Oklahoma? An unusual case? A series of cases? A new device or technique? An organization problem or plan of action? A piece of experimental work?

If so, consider working it up as a SCIENTIFIC EXHIBIT to be shown at the annual meeting of the Oklahoma State Medical Association in May, 1958. Applications should be submitted on form reproduced on the opposite page.

Start now collecting your material and planning your exhibit. Since space is limited, you are encouraged to submit your application early. Your exhibit need not be large. It should be stimulating. Subjects which have special visual interest are particularly suitable.

MAY 5, 6, 7

ZEBRA ROOM

MUNICIPAL AUDITORIUM

OKLAHOMA CITY



Construction Begins on New Professional Building in Tulsa

Construction of a medical and dental office building at the northeast corner of 21st and Lewis Streets in Tulsa was announced in January by Arnold H. Ungerman, M.D., President of the Twenty-First Street Building Corporation.

To cost \$1,250,000, the new structure represents a cooperative venture of a group of Tulsa doctors and dentists. In addition to the stockholders it will provide office space for a limited number of other professional men. The building will accommodate 60 doctors and physicians, and will contain some 65,000 square feet of floor space.

The building will be of contemporary design with walls of insulated porcelain steel panels. Structural columns and windows will be aluminum covered.

Each suite is being designed to the individual requirements of the tenant. Complete pathology and x-ray laboratories will include isotope and cobalt bomb therapy equipment.

Other members of the Board of Directors of the Twenty-First Street Corporation are E. O. Johnson, M.D., J. D. Shipp, M.D., Robert M. Shepard, M.D., Harold A. White, M.D., Robert A. Nathan, M.D., E. N. Lubin, M.D., and Dave B. Lhevine, M.D.

New A.M.A. General Manager

A realignment of executive duties at the American Medical Association went into effect January 1. George F. Lull, M.D., took over the position of assistant to the president. F. J. L. Blasingame, M.D., of Wharton, Texas, assumed responsibility for overall administration with the title of general manager.

Doctor Blasingame has been active in medical affairs, both at the state and national levels, for many years. Since 1949, he

has been a member of the A.M.A. Board of Trustees, and in 1955 he served as president of the Texas State Medical Association.

In his new job, Doctor Lull will relieve the president of many of the burdens of that office in addition to serving as secretary of the Association. He will act as a special ambassador of the medical profession in cities and towns throughout the country. Doctor Lull joined the A.M.A. staff in 1946 after serving 34 years in the Army. His last position before Army retirement was Deputy Surgeon General.



Loy Clinic Opened In October

An open house, held in October, formally opened the new Loy Clinic building, pictured above, at Seventh and Leahy in Pawhuska. Owned by Richard W. Loy, M.D. and William A. Loy, M.D., the building is of modern functional design and contains 3,300 square feet of floor space.

The construction is concrete, steel, haydite block, brick, and glass. The exterior is pink brick and the interior is haydite block, painted in pastels. Floors are vinyl asbestos,

with nylon carpeting in consultation rooms. Desks, workwork and cabinets are Philippine mahogany. A unique feature is the complete hi-fi system with speakers dispersed throughout the building.

The floor plan of the building includes a complete laboratory, X-ray, recovery room, emergency surgery, three consultation rooms, physiotherapy, eight examining rooms, library, and business office.

New County Officers

(Continued from Page 95)

Northwest—Reece R. Boone, M.D., Mooreland; M. C. England, M.D., Woodward.

Oklahoma—James C. Amspacher, M.D., Oklahoma City; Robert T. Sturm, M.D., Oklahoma City.

Okmulgee—Cleve Beller, M.D., Okmulgee; R. D. Miller, M.D., Okmulgee.

Payne-Pawnee—C. W. Moore, M.D., Stillwater; G. B. Gathers, M.D., Stillwater.

Pittsburg—Fred D. Switzer, M.D., McAlester; H. C. Wheeler, M.D., McAlester.

Pontotoc—R. U. Northrip, M.D., Ada; Warren Fulton, M.D., Ada.

Pottawatomie—Paul Gallaher, M.D., Shawnee; Clinton Gallaher, M.D., Shawnee.

Rogers-Mayes—Wm. D. Anderson, M.D., Claremore; O. U. Holt, M.D., Claremore.

Tillman—Jack D. Honaker, M.D., Frederick; F. Polk Fry, M.D., Frederick.

Tulsa—Hugh Perry, M.D., Tulsa; Harlan Thomas, M.D., Tulsa.

Wood-Alfalfa—C. L. Benson, M.D., Cherokee; John F. Simon, M.D., Alva.

Counties which have not reported include: Blaine, Canadian, Carter - Love - Marshall, Choctaw-Pushmataha, Creek, Custer, Grant, Greer, LeFlore-Haskell, Logan, McCurtain, Murray, Okfuskee, Osage, Stephens, Texas-Cimarron, and Washington-Nowata.

*Society is listed first in boldface type followed by president's name and town, then secretary's name and town.

Revisions Made In Group Life Insurance Program

The Oklahoma State Medical Association Insurance Trust recently announced a new basis for determining premium rates under the Association-approved group life insurance program. In place of annually increasing rates, the trustees of the program have altered the contract to provide for premium terms of either 10 years or five years, depending upon the age of the participant. The new rates will become effective on March 15, 1958, the anniversary date of the contract.

Under the new system, a participant who is 30 years old will pay the same rate each year until he is 40, at which time he will be billed at a new rate from age 40 until he is 50 years old. A five year bracket prevails from age 50 to 70. During that period, the rates will be changed at ages 55, 60 and 65. The following schedule sets forth the applicable rates under the new age bracketed system of premiums.

	Rate/\$1000*
Under age 30	\$4.72
30-39	6.17
40-49	10.53
50-54	16.70
55-59	25.81
60-64	35.99
65-70	55.89

*The premium rate includes \$1.20 per thousand for accidental death and dismemberment benefits. Since a few policies were sold with this coverage on an optional basis, the A.D. & D. rate should be deducted to compute the new premium rate per thousand in such cases.

It was explained that the change was prompted by much criticism from physician participants regarding the annual rate increase. The premiums will now correspond to the average age for the appropriate age bracket and will not result in any increased cost to the physician over a period of time. In other words, the premium for the 30-40 age bracket will be based upon age 35 and remain constant throughout the period.

Experience Reported

Adopted by the O.S.M.A. in March of 1956, the group insurance program is carried by the Massachusetts Mutual Life In-

U.M.W.A. Program Discussed In McAlester

Problems associated with the United Mineworkers Welfare and Retirement Fund were discussed at a regional meeting held January 22 in the Aldridge Hotel, McAlester. Representatives of the 10th Councilor District responded to the invitation from C. E. Lively, M.D., Vice-Councilor.

The group presented problems regarding the discriminatory practices of the U.M.W.A. to special guests John F. Burton, M.D., Oklahoma City, President of the O.S.M.A. and Malcolm E. Phelps, M.D., El Reno, President of the American Academy of General Practice and O.S.M.A. Delegate to the A.M.A.

In administering their medical care program for union members in the area, the mineworkers have openly challenged the medical profession's long-standing policy of free choice of physician. Doctors Burton and Phelps discussed the problems from a national standpoint, citing examples of A.M.A. and other actions, and offered suggestions pertaining to the local problem. Those in attendance agreed to take the matter back to their respective county medical societies for further consideration and possible adoption of resolutions to be presented to the House of Delegates at the 52nd Annual Meeting in Oklahoma City.

surance Company. Since its beginning, \$110,000 has been paid to the beneficiaries of eight physicians.

A new member may apply within 31 days after the effective date of membership and be accepted under this program for \$10,000 coverage without evidence of insurability. An additional coverage of \$10,000 may be acquired at the same rates based upon a statement of health. Either \$10,000 or \$20,000 is also available to members of the Association who didn't take advantage of it with the original group on the basis of evidence of insurability, but in most cases, a statement of health to the Trustees will be sufficient.

Medicare Program To Be Renegotiated June 30, 1958

The Oklahoma State Medical Association has been advised by the Department of Defense that the date of renegotiation of Oklahoma's Medicare contract will be on June 30, 1958.

It is the plan of the Medicare Committee, in the interim, to contract specialty groups throughout the State with regard to prevailing inequities in the program from the standpoint of fees, procedures, etc. It is felt, by the Committee, that the physicians of Oklahoma, after approximately one and one-half years Medicare experience, are now in a better position to recognize, and thus correct, the inadequacies in the Medicare program.

The Association's Medicare Committee is headed by Doctor Walter E. Brown, Chairman, Tulsa. The other members of the Committee are: Thomas C. Points, M.D., Oklahoma City; Robert C. Lawson, M.D., Oklahoma City; William B. Renfrow, M.D., Oklahoma City; Horton Hughes, M.D.,

Shawnee; Tom S. Gafford, M.D., Muskogee; David C. Ramsay, M.D., Ada, and Charles E. Green, M.D., Lawton.

To attempt to facilitate and standardize the program, the Department of Defense has compiled a proposed "Medicare Manual and Schedule of Allowances," this document has been received in the Executive Office and is being studied by the Medicare Committee. The DOD Manual does not contain fees to be charged, as that will be for each State to decide according to their existing fee schedules. This manual is primarily prepared by the DOD for the use of all persons who administer or provide medical care for eligible dependents of military personnel. It is hoped by the DOD that physicians will use this manual for determination of the nomenclature corresponding to services rendered, and, in these areas where published, the allowance indicated.

The proposed manual has been expanded to include additional sections which have been determined from experience to be required for a better understanding and implementation of the Medicare program.

What's Your Hobby, Doctor?

THE DOCTOR'S HOBBY SHOW has become one of the outstanding attractions at the **OSMA ANNUAL MEETING**. A project of the Woman's Auxiliary, the show offers physicians an excellent opportunity to display the products of their leisure time. If you have a hobby, don't keep it a secret . . . Show your colleagues what you can do . . . **APPLY NOW!**

Doctor's Hobby Show

O.S.M.A. Annual Meeting

Municipal Auditorium

Oklahoma City

MAY 5 - 6 - 7 - , 1958

Application For Hobby Show Space

52nd ANNUAL MEETING

OKLAHOMA STATE MEDICAL ASSOCIATION

DESCRIBE EXHIBIT, including information as to size, shape and value (insurance is provided):

IMPORTANT: Deliver Exhibit to Zebra Room, Municipal Auditorium, by noon, May 4. Your Exhibit will be personally attended and insured at all times. It must be taken down by noon, May 7, when management responsibility ends.

MAIL THIS FORM TO:

**Mrs. Wm. R. R. Loney, Chairman,
Doctor's Hobby Show
2440 East 26th Place
Tulsa 14, Oklahoma**

Letters

Dear Doctor Burton:

The response to my recent inquiry concerning social security coverage for physicians and surgeons has been enthusiastic and enlightening.

As I have pointed out, I am convinced that coverage on a voluntary basis cannot be obtained because of opposition of this administration through the Labor Department, Treasury Department, and the Department of Health, Education and Welfare.

The final tabulation shows that 761 Oklahoma physicians and surgeons oppose compulsory coverage. Favoring it are 446.

Some indicated they favored legislation such as the Jenkins-Keogh, or Reed bills, which seek to amend the Internal Revenue laws to permit certain professional individuals to set up retirement systems through postponed income tax payments. I am sympathetic towards this proposal. However, this type of legislation must originate in the House of Representatives. If and when it reaches the Senate, it will have my full attention and study.

In view of the majority concensus on the compulsory social security coverage proposal, I will not press for legislation of this type.

Thanking you again for your cooperation and interest, I am

Sincerely yours,
ROB'T S. KERR.

Dear Doctor Burton:

Dr. John R. Heller, Director of the National Cancer Institute and Dr. Halbert L. Dunn, Chief, National Office of Vital Statistics request that I inform you about a proposed statistical study and enlist your support for the portion involving a limited number of physicians of the State of Oklahoma.

In substance, the proposed study is as follows:
The National Cancer Institute and the National Office of Vital Statistics are now prepared to

undertake the collection of residence and smoking histories and additional diagnostic information for a national ten percent sample of lung cancer deaths to explore in further detail the possible relationship between these factors and lung cancer. The study will be started in March, 1958. The national total of lung cancer deaths to be queried in a twelve-month period would be approximately 3,000. The estimated number of lung cancer deaths to be queried in Oklahoma would be about 39. For control purposes it is wished to query an additional 10 deaths from cancer of the large intestine and rectum. Thus, the total number of death certificates to be studied in Oklahoma during a twelve-month period would be approximately 49. Corresponding data on smoking and residence history for the general population will be collected by the Bureau of the Census as a supplement to its current Population Survey for May, 1958.

Both physicians and members of the family will be queried. The physician is queried first, thus giving him an opportunity to contraindicate querying the family informant listed on the death certificate if he feels this would be desirable, or to suggest the name of another relative. The letter to the family is sent about ten days after that to the physician. During a pretest in Pennsylvania, returns were received from 97 percent of the physicians and 94 percent of the families. All information will be treated as confidential and will be used for statistical purposes only.

The portion to be filled out by the physician consists of check marks and "yes" or "no" answers relating to the diagnostic procedures employed. The queries to the member of the family relate to smoking habits and residence history of the deceased.

In view of the fact that a relatively small number of physicians will be involved, (maximum: 49), that physician time for answering the reports is minimal, and that there is a patent need for obtaining more detailed data on the vexing question of cancer causation, we believe that the approach is sound and request that you approve the querying of the physicians involved.

Very truly yours,
GRADY F. MATHEWS, M.D.,
Commissioner of Health.

Editorial Note: The request to query the physicians involved has been approved by John Flack Burton, M.D., President of O.S.M.A.

Book Reviews

Books Received

The following books have been received by *The Journal* office. As space permits and the context warrants, books will be reviewed.

The Case Against the American Fluoridation Experiment. F. B. Exner, M.D., and G. L. Waldbott, M.D. The Devin-Adair Co., New York 10, New York. 1957. Price \$3.75.

Battle for the Mind. William Sargant. Doubleday & Company. 575 Madison Ave., New York 22, New York. Price \$4.50.

The Chemistry and Biology of Purines. CIBA Foundation, Little, Brown & Company, Boston, Massachusetts. 1957. Price \$9.00.

The Chronically Ill. Joseph Fox. Philosophical Library, Inc. New York 16, New York. 1957. Price \$3.95.

Compulsory Medical Care and the Welfare State. Melchoir Palvi, National Institute of Professional Services, Chicago, Illinois. 1949. Price \$2.00.

Every Other Bed. Mike Gorman, The World Publishing Company, Cleveland, Ohio. 1956. Price \$4.00.

Fads and Fallacies in the Name of Science. Martin Gardner, Dover Publications, New York, New York. 1957. Price \$1.50.

The Fight for Fluoridation. Donald R. McNeil, Oxford Press, New York 11, New York. 1957. Price \$5.00.

From Sterility to Fertility. Elliot E. Phillip, M.A., M.B., B. Chir., F.R.C.S., Philosophical Library, New York 16, New York. 1957. Price \$4.75.

General Urology. Donald R. Smith, Lange Medical Publi-Address, Los Altos, California. 1957. Price \$5.00.

Hang Onto the Willows. Ernestine Gravley, Bison Press, Shawnee, Oklahoma. 1957. Price \$3.00.

Health Yearbook. Oliver E. Byrd, Ed.D., M.D., Stanford University Press, Stanford, California. 1956. \$5.00.

Hormones in Blood. G. E. W. Wolstenholme and Elaine C. P. Millar, Little, Brown and Company, Boston, Massachusetts. 1957. Price \$9.00.

Management of Emotional Problems in Medical Practice. Samuel Liebman, M.D., J. B. Lippincott Company, Philadelphia 5, Pennsylvania. 1956. Price \$5.00.

Medical Services for Rural Areas. William A. Massie, Tennessee Medical Foundation, The Harvard

University Press, Cambridge, Massachusetts. 1957. Price \$1.25.

Methodology of the Study of Ageing. Editors for the CIBA Foundation, Little, Brown & Company, Boston, Massachusetts. 1957. Price \$6.50.

New and Nonofficial Remedies 1957. Evaluated by the Council on Pharmacy and Chemistry, J. B. Lippincott Company, Philadelphia, Pennsylvania. 1957. Price \$3.35.

Paper Electrophoresis. Editors for CIBA Foundation, G. E. W. Wolstenholme, Elaine C. P. Millar, Little, Brown & Company, Boston-Toronto. 1956. Price \$6.75.

Practical Gynecology: Diagnosis Treatment, 2nd edition. Reich & Nechtow, J. B. Lippincott Co., Philadelphia, Pennsylvania. 1950-1957.

Psychopathic Personalities. Harold Palmer, M.D., Philosophical Library, New York, New York. 1957. Price \$4.75.

Regulation and Mode Action of Thyroid Hormone. G. E. W. Wolstenholme, Elaine C. P. Millar, Little, Brown & Company, Boston, Massachusetts. Price \$8.50.

The Relation of Psychiatry to Pharmacology. Abraham Wikler, M.D., Williams & Wilkins Company, Baltimore 2, Maryland. 1957. Price \$4.00.

The Riddle of Stuttering. C. S. Bluemel, Interstate Publishing Company, Danville, Illinois. 1957. Price \$3.50.

Rypin's Medical Licensure Examinations. Edited by Walter L. Bierring, M.D., J. B. Lippincott, Philadelphia 5, Pennsylvania. 1957. Price \$10.00.

Science Looks at Smoking. Eric Northrup, Coward-McCann, Inc., New York, New York. 1957. Price \$3.00.

That Degenerate Spirochete. Oscar Daniel Meyer, M.D., Vantage Press, Inc., New York, New York. 1952. Price \$5.00.

Tumors of the Kidney, Renal Pelvis and Ureter. Balduin Lucke, M.D., P. H. Schlumberger, M.D., Hans G. Schlumberger, M.D. Armed Forces Institute of Pathology, Washington, D.C. 1957. Price \$2.25.

A Visit to the Hospital. Francine Chase, Grosset & Dunlap, Inc. New York, New York. 1957. Price \$1.50.

When Doctors Meet Reporters. Compiled by Hillier Kriegbaum. Josiah Macy, Jr., Foundation, New York 36, New York. 1957.

Deaths

PHILIP LUTHER MCCLURE, M.D.
1876-1958

Philip Luther McClure, M.D., 81, pioneer Fort Cobb physician, died in Chickasha January 1. Doctor McClure was the father of H. M. McClure, M.D., President of the Oklahoma State Medical Association in 1956.

Born in Murfreesboro, Arkansas in 1876, Doctor McClure graduated from the University of Arkansas School of Medicine in 1907 and later that year moved to Fort Cobb and began his practice. He was one of the few remaining pioneer doctors in that area. Doctor McClure retired from active practice about ten years ago.

Doctor McClure was an Honorary Member of the Oklahoma State Medical Association and a member of the American Medical Association.

CLAUDE L. REEVES, M.D.
1898-1958

Claude L. Reeves, M.D., prominent Oklahoma City anesthetist, died at his home January 13. Doctor Reeves was born in Durant, Oklahoma in 1893.

After graduating from Southeastern State College, Doctor Reeves served as superintendent of schools at Holdenville and principal at Bristow and Okemah. He received his masters degree from the University of Oklahoma and subsequently graduated from the University of Oklahoma School of Medicine in 1931. Doctor Reeves was a resident of Oklahoma City since 1929 and his practice was limited to anesthesiology.

Doctor Reeves was a member of the Oklahoma County Medical Society, the Oklahoma State Medical Association and the American Medical Association.

F. L. WORMINGTON, M.D.
1875-1957

F. L. Wormington, M.D., a practicing physician and surgeon in Miami for almost 57 years, died at Miami Baptist Hospital December 24.

Born in Ritchey, Missouri, Doctor Wormington attended the University of Arkansas and was graduated from the University Medical College of Kansas City, Missouri in 1900.

Doctor Wormington was a member of the Oklahoma State Medical Association, the Ottawa County Medical Society, the Frisco Railroad Medical Association, the Southern Medical Association and the American Medical Association.

CHARLES CLEMENT PRUITT, M.D.
1873-1958

Charles Clement Pruitt, M.D., 84, pioneer Comanche physician, died January 7, 1958 in Oklahoma City. Born in Russellville, Arkansas, Doctor Pruitt came to Comanche in 1900.

Doctor Pruitt had been honored with the presentation of a 50-year Masonic pin and a 25-year pin from the Rock Island Railroad in recognition of his services as a surgeon for that company. He had been a member of the American Medical Association.

JOHN A. RODDY, M.D.
1884-1957

John A. Roddy, M.D., 73, Oklahoma City physician, died at his home December 31. Doctor Roddy was born in Philadelphia, Pennsylvania in 1884. He graduated from Jefferson Medical College in 1907 and for seven years was assistant professor of the Department of Bacteriology at the college.

Doctor Roddy came to Oklahoma City in 1910 to enter practice. He was a member of the American Academy of Medicine, the Oklahoma County Medical Society, the Oklahoma State Medical Association and a Fellow of the National Heart Association.



Articles published in *The Journal* of the Oklahoma State Medical Association February, 1933.

PELLAGRA

C. C. Gardner, M.D., Atoka

"What is it? An avitaminosis—a symptom complex; a disease due to moldy, rotten maize, or corn, lacking the amino fatty acid—an infectious disease due to the simulum reptans, mosquitoes, nematodes—a toxic condition, due to silica or aluminum.

"To me, pellegra means an avitaminosis plus something else, usually something surgical. When in New Orleans, in 1915, I heard a lecture at Tulane, in which the lecturer divided pellegra into three stages:

"1. The pre-eruptive stage, characterized by neurasthenia.

"2. The eruptive stage, and

"3. The cerebrospinal stage, characterized by changes in the brain and cord.

"I have been to many meetings since, but have never heard it classified that way. During the war, I met Dr. Robert L. Benson, formerly Assistant State Bacteriologist for the State of Florida, now bacteriologist for the City of Portland, Oregon. His theory was, that Pellagra was always complicated with some surgical condition, or followed the acidosis of some severe illness or disease. . . .

"In my opinion enough stress has been laid upon diet, but not enough consideration given to the complications which accompany pellegra. Many of the patients I have seen needed surgical operations to enable them to eat without pain; and a balanced ration. In my experience pellegra has always followed some severe illness or acute infection, during which a patient developed a starvation acidosis. . . .

"This leads me to believe that potential acidosis long continued, and due to starvation from the avitaminosis (due to poverty, or gastro-intestinal gynecological genito-urinary affections) eventually become decompensated, and when this occurs, hydrolytic cleavage of the carbohydrates and suboxidation of proteins and fats, are responsible for destructive changes in the blood cells, and (particularly the R.B.C.) and neurotoxins elaborated, which by their effect on the spinal and sympathetic nervous systems produce the pellagrous erythema. . . ."

PHYSICIAN PLACEMENT

Internal Medicine

Bartis M. Kent, 225 Koser, Iowa City, Iowa, age 32, married, Baylor, 1948. Three year residency at Baylor, veteran, available July, 1958.

General Practice

Jack L. Coats, M.D., 1414-A East 17th Place, Tulsa, Oklahoma, age 29, married, veteran, University of Oklahoma School of medicine 1957, will be available July 1, 1958.

Sam Davis, M.D., 1605 N.E. 38, Oklahoma City, age 33, married, graduated from University of Oklahoma School of Medicine, 1956, veteran, will be available July 1, 1958.

Neurosurgery

Bahif S. Salibi, M.D. (Currently Captain, MC U. S. Army) 121 Evac. Hosp., APO 971, San Francisco, California, age 35, married, Board qualified in Neurosurgery, except for the two years of private practice required by the Boards, available October, 1958.

Thoracic and Cardiovascular Surgery

Wayne E. Hird, M.D., McGuire VA Hospital, Richmond 19, Virginia, age 31, married, Korean veteran, University of Kansas 1950, Board qualified in General Surgery, Thoracic and Cardiovascular exams will be completed by next July. Will be available July, 1958.

Obstetrics & Gynecology

Herbert Claiborne Jones, Jr., Box 166, University Hospital Charlottesville, Virginia, age 30, married, University of Virginia 1951, finishing board qualifications, will be available Spring, 1958.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

Charles Edward Selah, M.D., Huey P. Long Charity Hospital, Pineville, Louisiana, age 31, married, will complete board requirements in June, 1958, veteran, graduated from Tulane 1951, will be available July 1, 1958.

Ralph L. Hopp, M.D., 338 E. Kingsley, Ann Arbor, Michigan. Married, veteran, Board Certificate held in General Surgery, will be available July 1, 1958. Graduated Indiana University, 1950.

Orthopedic Surgery

H. N. Hamilton, M.D., 13 Evergreen Road, Little Rock, Arkansas, age 36, married, veteran, The Johns Hopkins, 1945, finishing Orthopedic Residency July 1958 and will be available at that time.

CLASSIFIED ADS

5-TON Westinghouse Air Conditioner property of Association, excellent condition, \$500.00.

WANT TO BUY your surplus equipment. We buy, sell, trade medical apparatus. Largest stock of good used medical devices in the Southwest. Expert repairs on X-ray and electromedical machines. Tell us about your equipment problems. TEX-RAY CO., opposite St. Paul's Hospital at 3305 Bryan Street, Dallas.

PHYSICIAN'S OFFICE EQUIPMENT: Medical Arts Building, Oklahoma City, available in nice office; two examining tables and stools; desk; reception room furniture; filing equipment; bookcase; refrigerator; scales; sterilizer; many small items; \$500; Write Key F, c/o THE JOURNAL, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

CLINIC LOANS: If you are planning to build a clinic, and need to secure financing, call Pat Allen, WI 2-2402 or write 1201 Classen Dr., Oklahoma City.

FOR SALE: X-Ray 25 ma., 2 anesthesia machines and accessories, and microscope, etc. Phone JA 5-2532.

FOR SALE: Office equipment consisting of reception, consulting, examining, supply room. This office is located in northeast Oklahoma and the rent is fifty dollars per month if you should desire to use the present building. There is an opening here for another young doctor and this office could be ready for business immediately. The office equipment price is \$2,000. If interested contact JOURNAL.

FOR SALE: Young Cystoscopic table, 100 M A rotating anode tube, controls, transformer, cassettes (complete unit) 3 years old—\$2,500.00. Springer Clinic, Tulsa, Oklahoma, LU 7-6621.

WANTED PHYSICIAN: recent graduate as assistant in industrial surgery. Beginning July 1, 1958. Apply Glass-Nellson Clinic, Tulsa, Oklahoma, P. O. Box 3718.

TAKE A LOOK AT
NEW DIMETANE[®]
THE UNEXCELLED
ANTIHISTAMINE

A New Section in The Journal

The Editors of the *Journal* and a committee appointed by Doctor Everett, Dean of the School of Medicine and Director of the Medical Center, have evolved a plan to expand the usefulness of the *Journal* to its readers by devoting a section to the work going on at the Medical Center. It will be a kind of progress report to the physicians of the State without whose help progress would not be possible; but in addition it will include material designed to increase the readers basic knowledge of human disease and behavior particularly in those areas where important changes in concept are occurring.

The Medical Center includes the University of Oklahoma School of Medicine which is responsible for Medical education in Oklahoma and graduates nearly 100 young men and women each year; the University Hospital and the Children's Memorial Hospital which offer in-patient and out-patient service to patients who are the clinical material for teaching students and house officers; the Oklahoma Medical Research Foundation and its hospital which is concerned with both basic and clinical research; the Veterans Administration Hospital which is concerned with service to veterans, with research and with the training of house officers and students; the University of Oklahoma School of Nursing which offers to young women both a degree and a diploma program. Other facets of this soundly developing center which are perhaps less well known are: an extensive educational program for students working toward graduate degrees in the basic sciences; a program for the training of technologists of many kinds; a Speech and Hearing Clinic in a new building of its own; and many others.

It is difficult to comprehend the scope of the integrated whole of the Medical Center. Much of the work done is of such a basic

nature that it must be reported in publications devoted to basic research. Many of the clinical studies are best reported in Journals whose readership is eminently qualified to criticize and to test. Consequently the members of the profession in Oklahoma who are asked to support the Medical Center in every way possible have little opportunity to know actually what is going on there.

This section is designed to correct this defect and to make it possible for a physician anywhere in Oklahoma to speak with knowledge to his friends about all parts of the Medical Center voluntarily or in answer to questions. The observation of a bacteriologist, Alexander Fleming, that a certain mold prevented the growth of streptococci on an agar plate required nearly twenty years to grow into a useful antimicrobial agent. With the help of the physicians and the people of Oklahoma who knows into what mighty oaks the little acorns being planted at the Medical Center may grow.

Cancer Survival

There has been much controversy recently regarding various concepts of cancer therapy. This has raged most furiously over the mode of treatment for breast cancer.

Smith¹ summarizes the whole problem as follows: "The principle cancer therapy is the eradication of all tumor from the largest amount of tissue at the earliest possible moment. The accomplishment of the method of treatment is the amount of tissue cleared of tumor. The rate of survival does not reveal the accomplishment of the method of treatment. The rate of survival expresses the ratio of tumor cell distribution to the amount of tissue cleared of cancer. The survival rate varies principally with the unpredictable distribution of tumor cells.

When the difference in the accomplishment of two methods is slight, a comparison of survival rates cannot be expected to reveal that difference. Nevertheless, it is invariably true that superiority attends the method most nearly fulfilling the objectives of the principle of treatment. Therefore, compliance with the principle of treatment rather than comparison of survival rates should determine the method of therapy."

Another most interesting proposal regarding cancer survival has been suggested by Schrek.² He points out that life insurance statisticians have long used the average survival time for a given age to compute life expectancy. He shows that a modified form of average survival time—the median survival time (or its converse, the median death time)—can be used to evaluate cancer therapy results. Median survival time is the time at which 50 per cent of the patients in

a given group remain alive. Median death time is similar to the laboratory measurement whereby results are expressed as terms of LD₅₀. Schrek suggests that the measurable virable be changed from dosage (as in LD₅₀) to time expressed as LT₅₀. Thus the lethal time for 50 per cent would be the interval during which half of the patients in a given series die.

The use of LT₅₀ would avoid the mistake of computing the average duration of life from the records of patients who have died from five to seven years after treatment, an error which is inherent in cancer statistics which are based upon survival rates rather than survival times.—J.M.

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2. Schrek, R.: Fifty Per Cent Survival Time as a Measure of Prognosis in Cancer. Am. J. Clin. Path., 26:172 (Feb.) 1956.

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Scientific Articles

The Effects of Digoxin on

CARDIAC OUTPUT *and* HEMODYNAMICS

*in Experimental Supravalvular Mitral Stenosis**

WILLIAM E. JAKUES, M.D. and ALBERT L. HYMAN, M.D.

It is generally accepted that digitalis produces an increased cardiac output in congestive heart failure from mitral stenosis.¹ However, the occurrence of pure mitral stenosis in man is unusual if indeed it does exist. The opportunity to study the hemodynamics in these individuals is very limited.

In order to pursue this problem, a method was devised to produce heart failure from a pure supravalvular stenosis of the mitral valve in dogs.²

Material and Methods

Seventeen mongrel dogs were used in this experiment. They were caged separately and fed the routine diet. A supravalvular stenosis was produced as described previously.² The dogs were anesthetized with a 30 mg./kg. solution of Nembutal^{R**}. The animals were studied during the control period with cardiac catheterization, femoral artery cannulation, oxygen consumption, and arteriovenous oxygen were determined. The cardiac output was determined by the Fick Principle. The rate of sodium and water excretion was determined in eight dogs.

After control studies were completed, 0.25 to 0.55 mg. of Digoxin^{R*} was administered intravenously in all except four dogs. Two animals received 1.3 mg. of digoxin. The cardiac output, arteriovenous oxygen differences and pressures were recorded following the digoxin.

Two animals were phlebotomized of 150 and 270 ml. respectively.

Results

The acute response to intravenous digitalis was observed in 15 dogs (Table I and

AUTHOR'S NOTE

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Chart I). In 12 animals, there was a significant fall in cardiac output. This was associated with a fall in pulmonary artery pressure in all but one animal. In this animal, the mean pulmonary artery pressure was 8 mm. Hg. before digitalization and 9 mm. Hg. after digitalization. In the 10 instances in which pulmonary "wedge pressures" were determined, it was only appreciably elevated in two dogs. In both these cases, the "wedge pressure" fell following digitalis. The total pulmonary vascular resistance, as measured at the pulmonary artery level, was significantly increased in six animals. The systemic arterial resistance was increased in all but one animal. There was no significant alteration in heart rate.

CHART 1: THE EFFECT OF DIGOXIN ON THE

DOG	WEIGHT (Kg)	DOSAGE OF DIGITALIS (mgms)	CARDIAC OUTPUT IN L/MIN		CHANGE	MEAN PULMONARY ARTERIAL PRESSURE IN MM/Hg		PULMONARY WEDGE PRESSURE IN MM/Hg		RIGHT ATRIAL PRESSURE IN MM/Hg	
			BEFORE	AFTER DIGITALIZATION		BEFORE	AFTER DIGITALIZATION	BEFORE	AFTER DIGITALIZATION	BEFORE	AFTER DIGITALIZATION
98	9.0	0.80	5.00	3.00	Decrease	30.0	22.0	15.0	11.0	3.0	3.0
18	7.0	0.44	0.54	0.33	Decrease	8.0	9.0	5.0	4.0	E.D. 0	—
18	7.0	1.30	2.60	0.95 1.60	Decrease	23.0	19.0	8.0	—	E.D. 14.0 8.0	—
43	7.4	0.44	3.40	2.00	Decrease	35.0	28.5	14.0	13.0	E.D. 15.0	E.D. 3.7
42	8.3	0.25	3.10	1.50	Decrease	30.0	12.0	10.0	—	E.D. 15.5	—
96	8.0	0.50	1.40	0.64	Decrease	21.0	18.0	10.0	8.0	E.D. 8.0	E.D. 5.0
86	9.2	0.45	3.90	2.80	Decrease	23.0	19.0	4.0	—	E.D. 10.0	—
83	8.1	0.50	2.40	2.30	No change	18.0	17.0	7.5	5.0	E.D. 3.0	E.D. 5.0
77	7.9	1.30	2.00	1.20	Decrease	31.0	22.0	7.5	—	E.D. 4.0	E.D. 0
72	11.4	0.25	5.10	2.00	Decrease	30.0	25.0	15.0	—	E.D. 12.5	E.D. 10.0
62	12.8	0.80	2.70	0.69	Decrease	24.0	19.0	9.0	9.0	E.D. 9.0	E.D. 2.0
15	9.1	0.50	2.10	3.40	Increase	19.0	16.5	8.0	6.0	E.D. 4.0	E.D. 4.0
38	8.5	0.60	4.00	2.10	Decrease	37.0	24.0	23.0	10.0	E.D. 6.0	E.D. 0
70	10.3	0.50	3.20	1.90	Decrease	22.0	10.0	1.0	1.0	5.0	1.0
106	8.3	0.50	2.50	2.70	No change	35.0	27.0	25.0	18.0	E.D. 3.0	E.D. 3.0
PHLEBOTOMIZED DOGS											
77	7.9	Amount of blood withdrawn 150.Occ.	2.00	1.28	Decrease	19.0	14.0	9.0	6.0	3.0	3.0
62	12.8	270.Occ.	3.50	2.70	Decrease	22.5	18.0	7.5	7.5	2.5	0

LEGEND

E.D.: Right ventricular end-diastolic pressure

—: Not recorded.

Graphic Representation of Cardiac

In only one dog was there an increase of 60 per cent in cardiac output after digoxin. There was a slight decrease in pulmonary artery pressure associated with a slight fall in pulmonary artery resistance and a slight fall in systemic arterial resistance. The pulmonary "wedge pressure" was not altered.

Two dogs showed no change in cardiac output. One of these animals displayed a fall in pulmonary artery pressure and "wedge pressure." In this dog the pulmonary artery resistance likewise fell, while the systemic arterial resistance rose slightly.

The hemoglobin varied from 9.2 to 14.9 gm.%, except in one animal when it was 7.8 gm.%.

The two dogs subjected to phlebotomy showed a decrease in cardiac output and a

fall in pulmonary artery pressure. There was no appreciable change in pulmonary "wedge pressure" which had been normal. The pulmonary vascular resistances showed no appreciable change while there was definite increase in systemic arterial resistances. There was a slight fall in hemoglobin.

The sodium and water excretions were determined in eight dogs following digitalization (Table II). In four animals, there was a pronounced naturesis and diuresis. Four animals showed no change and one displayed a slight decrease after digitalis. These changes could not be correlated with a change in cardiac output, or right ventricular end-diastolic pressure.

Discussion

These experiments were designed to test the effect of digitalis in a pure supraventricular

HEMODYNAMICS IN EXPERIMENTAL MITRAL STENOSIS

PULMONARY ARTERIAL RESISTANCE IN DYNE/CM-5 BEFORE AFTER DIGITALIZATION		PULMONARY ARTERIOLAR RESISTANCE IN DYNE/CM-5 BEFORE AFTER DIGITALIZATION		LEFT SIDED RESISTANCE IN DYNE/CM-5 BEFORE AFTER DIGITALIZATION		SYSTEMIC ARTERIAL RESISTANCE IN DYNE/CM-5 BEFORE AFTER DIGITALIZATION		HEART RATE BEFORE AFTER DIGITALIZATION		Hb (gms%)
490.0	710.0	260.0	350.0	230.0	360.0	1800.0	5100.0	200.0	200.0	12.0
1280.0	2180.0	480.0	1210.0	800.0	970.0	1850.0	2900.0 2580.0	160.0	130.0	11.5
770.0	1200.0	510.0	—	260.0	—	4500.0	7700.0	170.0	180.0	10.5
830.0	1140.0	500.0	980.0	330.0	160.0	2690.0	4350.0	165.0	150.0	9.4
775.0	640.0	520.0	—	255.0	—	3500.0	4140.0	175.0	175.0	11.4
1200.0	2250.0	630.0	1250.0	570.0	1000.0	8800.0	19000.0	180.0	165.0	12.0
480.0	550.0	390.0	430.0	90.0	120.0	2700.0	2700.0	150.0	150.0	9.4
670.0	600.0	430.0	420.0	240.0	180.0	4950.0	4700.0	150.0	155.0	7.8
1270.0	1460.0	970.0	970.0	300.0	490.0	6400.0	9000.0	170.0	150.0	9.2
475.0	1000.0	235.0	—	240.0	—	2300.0	6600.0	185.0	175.0	13.5
460.0	2340.0	250.0	1280.0	190.0	760.0	4350.0	20000.0	160.0	160.0	11.5
725.0	390.0	305.0	248.0	420.0	142.0	5210.0	3200.0	165.0	150.0	11.8
740.0	920.0	112.0	535.0	628.0	385.0	4940.0	6900.0	180.0	200.00	12.1
501.0	416.0	490.0	375.0	11.0	41.0	3400.0	9680.0	200.0	200.0	14.9
1150.0	740.0	320.0	160.0	830.0	160.0	3850.0	4820.0	180.0	175.0	15.0
760.0	880.0	400.0	500.0	260.0	330.0	4330.0	5500.0	150.0	150.0	12.5
530.0	560.0	390.0	250.0	140.0	130.	3650.0	4500.0	150.0	150.0	12.5

Output and Mean Pulmonary Artery Pressure

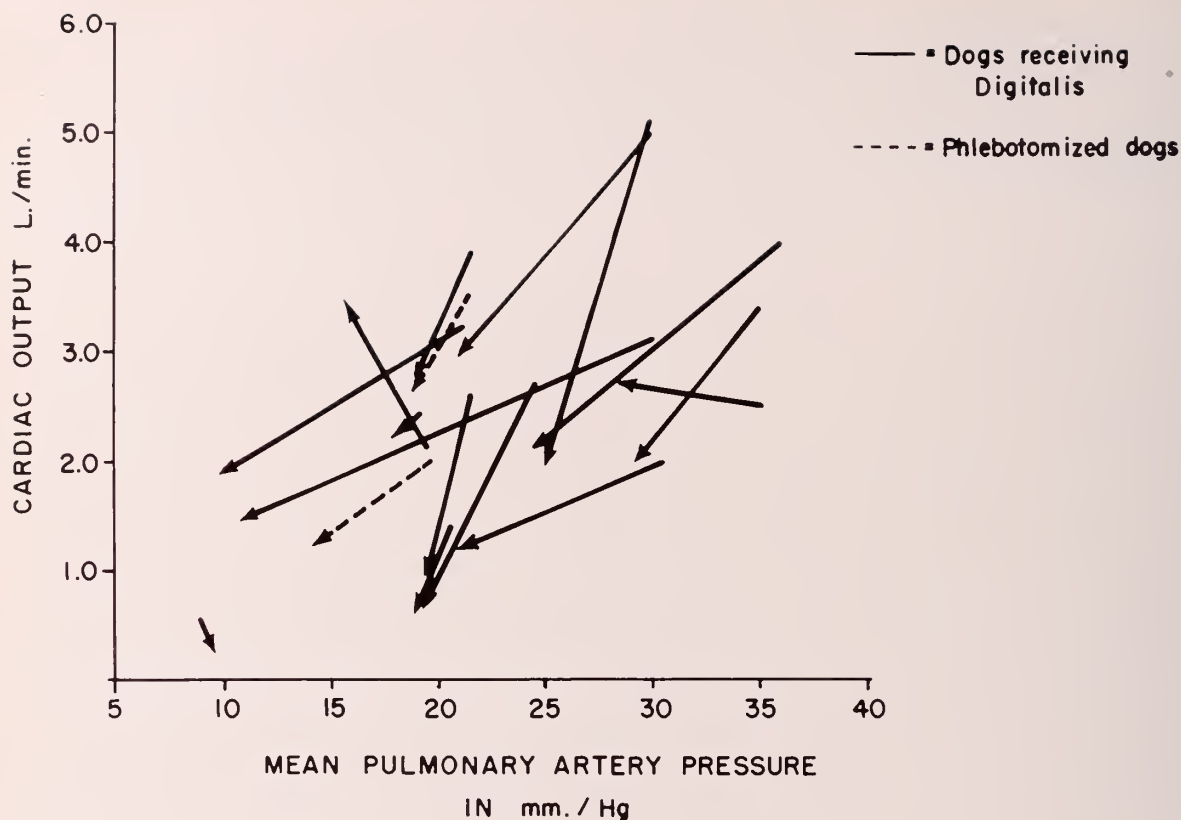
mitral stenosis without any element of mitral regurgitation of myocardial damage. The only clinical and anatomic evidence of myocardial damage was noted where the suture encircled the left atrium.

The results indicate that within five to ten minutes after the administration of digitalis, in most instances, the pulmonary artery pressure falls and during the ensuing 30 to 60 minutes there is a fall in cardiac output.

It seems probable that in these experiments the digitalis produces a systemic or splanchnic venous vasodilatation.^{3,4} A fall in pulmonary artery pressure followed. With a decrease in pressure, the flow through a fixed stenotic valve fell. Indeed, by reducing the venous return to the heart with rapid phlebotomy, similar observations

were obtained.

Numerous observations on the effect of digitalis on patients with rheumatic mitral stenosis and heart failure have indicated a rise in cardiac output with a fall in right heart pressure.¹ The dissimilarity between these results and our findings may perhaps be related to actual myocardial damage by rheumatic fever or to an unrecognized element of mitral regurgitation or both. The purer the mitral stenosis and the less the myocardial damage by rheumatic heart disease, the less likely it is that the cardiac output will be increased by digitalis. Ferrer, and colleagues⁵ found no changes after digitalization of patients suffering from mitral stenosis with a mechanical block only. Their data indicate that digitalis is only helpful if myocardial damage is present.



The observations of sodium and water excretion fail to reveal any apparent correlation between the latter and cardiac output. There were frequent instances of a fall in cardiac output with a diuresis and naturesis. In all these animals, the right atrial or right ventricular end-diastolic pressure was normal before digitalization and was not appreciably altered by digitalization. The finding of normal atrial pressure in dogs with heart failure from experimental mitral sten-

osis has been previously reported.⁶ There was no apparent correlation of the latter pressures with the excretion of sodium and water in the urine. Previous observations from this laboratory indicated that digitalis exerts a direct effect on the kidney.⁷ It is possible that this mechanism can explain the naturesis and diuresis frequently observed.

Continued on Page 159

Dog	Wt. in Kg.	Dosage of Digitalis	Cardiac output before Digitalis in L./min.	Cardiac output after Digitalis in L./min.	Highest total No excretion before Digitalis in meq./min.	Highest total No excretion after Digitalis in meq./min.	Greatest urine volume before Digitalis in ml./min.	Greatest urine volume after Digitalis in ml./min.
98	9.0	0.80	5.00	3.00	1.00	2.60	0.10	0.13
15	9.1	0.50	2.10	3.40	1.17	1.23	0.42	0.51
38	8.5	0.60	4.00	2.10	0.23	1.30	0.14	0.70
70	10.3	0.50	3.20	1.90	0.29	0.38	0.19	0.19
18	7.0	1.30	2.60	0.95	0.50	0.52	0.25	0.50
77	7.9	1.30	2.00	1.20	0.54	0.83	0.12	0.15
83	8.1	0.50	2.40	2.30	4.70	0.40	0.27	0.12
72	11.4	0.25	5.10	2.00	1.30	1.20	0.07	0.10

Table II
Representation of Relationship Between Cardiac Output and Water And Sodium Excretion

The Control of a Post-Natal Epidemic of **BREAST ABSCESES in a GENERAL HOSPITAL**

ROBERT W. DEAN, M.D.

In the fall of 1956 it became apparent that an epidemic of breast infections existed at St. John's Hospital when one obstetrician noticed that abscesses developed in six of his post partum patients in a short period of time. Upon questioning several obstetricians, he found that they also were encountering this problem. Largely through his efforts, measures were taken which have markedly reduced the incidence of this post partum complication at our hospital. The number of breast infections is shown in Figure I, with his cases shown above the total number for the hospital.

A committee was organized to study this problem and the problem of hospital infections in general. The members of the committee were three obstetricians, the obstetrical resident, the obstetrical supervisor, two pediatricians, two surgeons, an internist, a pathologist and an otorhinolaryngologist. This group gathered data on all hospital infections; reviewed relevant journal articles and studied current hospital practices. It made many valuable suggestions for the correction of breaches in technique.

Articles which came in contact with either the mothers' breasts or the infants during the period of hospitalization were cultured. A representative list included: infant oxygen masks, sterilizing solutions, cord ties, breast pads, and nursery stethoscopes. Of all fomites cultured, only the stethoscopes were found to harbor pathogenic organisms. These stethoscopes were subjected to zephiran cleansing after being used each time, and on subsequent cultures were found to be negative.

Throat, nasopharyngeal and hand cultures were taken of all obstetricians, pediatricians, nurses, student nurses, aides and maids. The incidence of positive cultures is shown in Figure II. The treatment of persons whose cultures were positive was carried out under direction of the otorhinolaryngologist on the committee, and each carrier was fol-

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lowed until his culture remained negative. It was necessary to discharge one aide whose work habits did not improve as per suggestion and who did not accept treatment.

A questionnaire was prepared and mailed to each obstetrician in order to include all known cases of mastitis and breast abscesses. The response to the questionnaire was 100 per cent. Although cases of mastitis and breast abscess were listed separately on the questionnaire as shown in Figure III, no distinction was made in tabulating them in Figure I because basically they represented differing degrees of the same entity. The delivery room technique was subjected to careful scrutiny. Several careless practices had developed in our delivery room. This was due to the previous absence of obstetrical infections and to the generally complacent attitude towards infection in this antibiotic era. Obstetricians wearing street clothes would occasionally enter the delivery room to observe an intern's delivery technique. Anesthesiologists and circulating nurses were not wearing masks when in delivery rooms. Babies were being cleansed with baby oil only.

The corrective measures are obvious. No one was allowed in the delivery room in street clothes or without masks. Phisohex was substituted for baby oil in cleansing the newborns. Cooperation was excellent and few enforcement measures were necessary.

Our newborn nursery consists of two large rooms with a workroom between them. Each room contains forty individual crib units

Cultures (#)	Nasopharyngeal Cultures				Hand Cultures All Personnel
	Doctors	Students & RN's	Aides & Maids	Total	
	46	49	68	163	84
Positives (%)	22	18	16	18	1

Nasopharyngeal and Hand Cultures Taken in December

Figure II

separated by clear plastic dividers. Although each crib unit has its own linen stack, we found that nurses aides were using the linen stacks from crib units of babies who had gone home before they had been resterilized. About three years ago the pediatricians complained that infants were being burned by the ultraviolet germicidal lights so these were turned off. We turned these back on. The nursery personnel was instructed to wear masks and to change them several times during an eight hour shift. Periodic meetings were held with all nursery personnel to stress the value of aseptic technique with emphasis on frequent hand washing. Throat cultures were done on all breast fed babies on the fourth day so that the pediatrician and obstetrician could be appraised of positive cultures and institute preventive measures early. Figure IV shows the results of these cultures. The nasopharynx of every baby in the nursery was cultured on February 20th; there were no positive cultures.

It was recommended that breast feeding be stopped. This was an important factor in stopping the epidemic because 95 per cent of the infections occurred in nursing mothers. Preventive measures were not generally adopted until about the last week in December when the epidemic nature of the prob-

	Total Cultures	Positive Cultures
Dec. 11-Dec. 17	3	1
Dec. 18-Jan. 3	8	1
Jan. 4-Jan. 18	21	1
Jan. 19-Feb. 3	24	3
Feb. 4-Feb. 20	22	0
*Feb. 20	60	0

Nasopharyngeal Cultures On All Nursing Babies Taken on Fourth Hospital Day

*All Babies in Nursery Cultured On This Date

Figure IV

lem was apparent to all. However, the obstetrician who had the six cases near the onset of the epidemic, and who previously estimated that 50 per cent of his mothers nursed, stopped virtually all of his patients from nursing about the third week in November. Comparing this man's series of cases with the general epidemic closely approximates a controlled study since he began discouraging nursing a month prior to the general institution of all described preventive measures. This comparison is illustrated in Figure I.

Another measure thought to be of value was early release from the hospital of nursing mothers. Since this was thought to be a hospital epidemic, it was recommended that all mothers who insisted on nursing be encouraged to leave on the third hospital day. All charity cases were discharged on the second or third post partum day, as compared to an average stay of five to seven days for private patients. It is of interest, therefore, to compare the incidence of these two groups, which is 1.44 per cent for charity patients and 5.31 per cent for private patients during the period from September 1st to December 31st, 1956.

PATIENT	DATE OF DELIVERY	DATE OF ONSET OF BREAST SYMPTOMS	MASTITIS ONLY		ABSCCESS NOT DRAINED		ABSCCESS DRAINED		ANTIBIOTIC USED	RESULTS OF CULTURES AND SENSITIVITIES	PATIENT NURSED		DATE OF I & D	PEDIATRICIAN	OBSTETRICIAN
			RT	LT	RT	LT	RT	LT			YES	NO			

Figure III
Questionnaire Sent To Obstetricians And General Practitioners

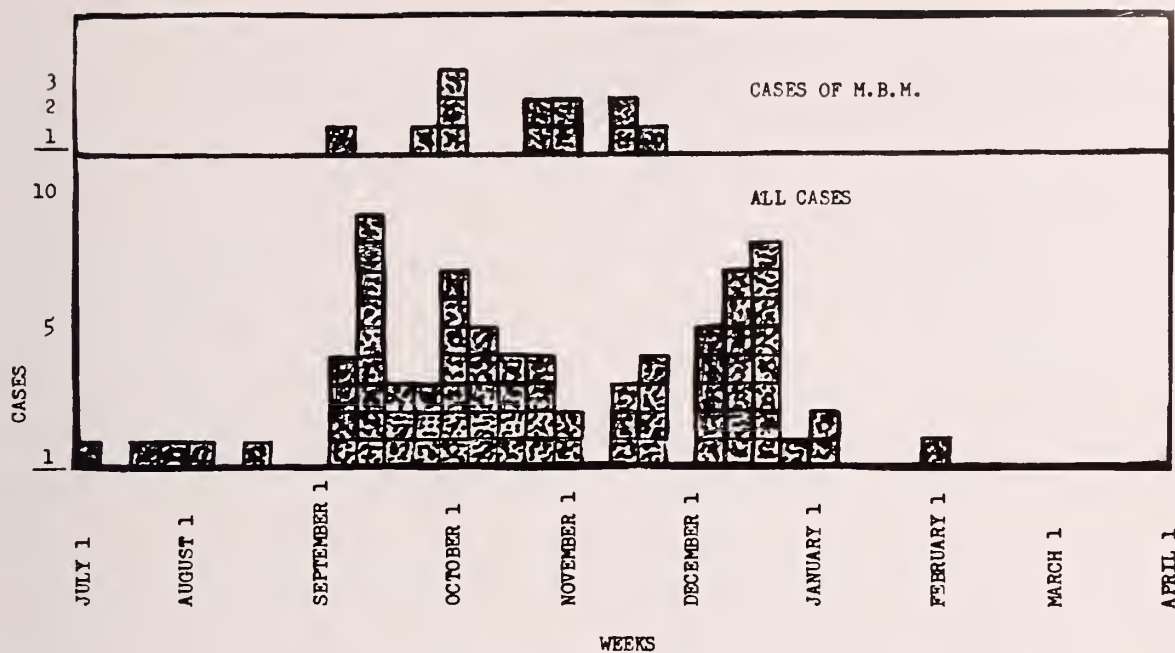


FIGURE I
BREAST INFECTIONS FROM JULY 1 TO APRIL 1, INCLUSIVE

The epidemic and its abrupt cessation are graphically illustrated in Figure I. The incidence of breast infections between September 1st and December 31st, 1956 is 4.93 per cent. This compares to an incidence of 0.62 per cent between July 1st and August 31st, 1956 and to an incidence of 0.1 per cent between January 1st and March 31st, 1957. Because only about 50 per cent of our staff actively discouraged nursing and encouraged early discharge of nursing mothers, we feel justified in attributing the control of the epidemic to improvement in delivery room and nursery asepsis, and to the vigorous treatment of carriers. We are gratified that these measures proved effective, and that widespread prophylactic use of antibiotics was not necessary. Some hospitals have given prophylactic antibiotics to all newborn infants while they were in the hospital. We feel that our approach is more rational.

Our experience brings into focus several important points. First, it shows that a resistant organism can emerge and cause an epidemic. Although only fourteen culture and sensitivity studies were done on drained abscesses, it is significant that all of these showed a penicillin resistant staphylococcus aureus. This again emphasizes the value of

adequately treating every infection in order to develop fewer resistant organisms and shows the increasing necessity for culture and sensitivity studies in this day of multiple antibiotics and their promiscuous use.

The next thing that came to our attention was the number of breaches in aseptic technique. For this reason, we strongly recommend that every hospital organize an infection committee. Furthermore, there was a surprising incidence of carriers among our hospital personnel. We advise nasopharyngeal cultures, periodically, to control this problem.

In the event that any hospital should have an outbreak of breast infections similar to ours, we suggest that breast feeding be stopped immediately in so far as possible. Mothers who insist on nursing should be discharged on the third post partum day. An additional precaution thought to be of value is the use of nipple shields by nursing mothers. The prophylactic use of antibiotics is a debatable issue and we are not able to add any information on this point, however, they were not generally used for either the mothers or the infants in our study.

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STOP RHEUMATIC FEVER

WILLIAM W. SCHOTTSTAEDT, M.D.

The program to STOP RHEUMATIC FEVER has focused attention upon prompt and adequate treatment of upper respiratory infections due to beta-hemolytic streptococci and prophylactic treatment of patients who have once had rheumatic fever. Such therapeutic and preventive measures are useful because the epidemiology of rheumatic fever is the epidemiology of the beta-hemolytic streptococcus. And of the various streptococci, Group A have been found to be the most frequent cause of pharyngeal infection. Yet not all persons with Group A streptococci develop symptoms. Many do develop a febrile response which causes them to seek medical care; some 20 per cent, however, develop a sore throat with no constitutional symptoms. And an unknown but appreciable number develop no symptoms whatever. Of those who have a febrile response, only about three per cent then go on to develop acute rheumatic fever. These are fascinating facts and figures. Can one learn by a study of the 97 per cent who do not develop rheumatic fever what accounts for their resistance to the disease? Would new measures to STOP RHEUMATIC FEVER be found if one could but learn why some individuals develop no signs or symptoms of illness despite the presence of Group A streptococci in their nose and throat? Clearly, these are questions which deserve attention.

At the turn of the century, many studies were done on environmental factors in rheumatic fever. These were summarized by John R. Paul¹ in 1943. The geographic distribution of rheumatic fever seemed to indicate that cold, wet climates were a factor in increasing susceptibility, though unusually cold winters were not associated with an increased incidence of the disease. A seasonal peak was observed: March and April in the New England states, January and February in Oklahoma, and November in England. But studies failed to show any correlation with humidity or precipitation and the effects observed could have been related

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This is the seventh in a series of articles prepared for *The Journal* under the auspices of the Oklahoma State Heart Association and its Committee on Professional Education, emphasizing the theme of the Association for the current year.

to crowded living. Attempts to establish this possibility, however, by analysis of incidence of rheumatic fever in relation to population density showed no significant correlation except for an increased incidence in the urban population which was subject to many interpretations. The incidence was higher in low-income groups, but not strikingly so. The studies of Quinn² have shown that crowding is associated with an increased incidence of rheumatic fever, whether in an urban or a rural setting.

Another environmental factor which has been studied is the inanimate reservoir for streptococci: dust, clothing, and the like. Coburn and Young³ reported survival of some strains of streptococci for as long as eight months in ordinary dust. However, they felt that human reservoirs were more important in the spread of streptococci. This was borne out by the studies of Wannamaker⁴ who found no higher incidence of streptococcal infection among servicemen using blankets contaminated with large numbers of streptococci than among those using clean blankets.

But studies of streptococci and of the environment have not demonstrated any factor or combination of them capable of producing the diverse effects known to follow streptococcal infection. Man has some degree of

resistance which in some undefined way determines whether a transient or chronic carrier state, an inapparent infection, or clinical illness develops after exposure to beta-hemolytic streptococci and whether or not rheumatic fever follows. The interaction which occurs between the streptococcus and its host, man, involves a multiplicity of antigenic substances, bacterial toxins, and substances related to virulence on the one hand and an equally formidable array of metabolites, antibodies, and host factors toxic to the streptococcus on the other. It seems clear from animal experimentation that, in addition to these factors which affect the immediate outcome of host-parasite relationship, certain factors in the host are essential to the production of rheumatic-like lesions.

Many antibody responses have been defined and studied in man, most prominent among these being the antistreptolysin-O titer. Stetson⁵ has reported that, despite great individual variation, subjects who develop rheumatic fever ordinarily show a greater antibody response to streptococcal infection than do other subjects. Bernheimer⁶ has suggested a relation to more frequent streptococcal infections among the rheumatic subjects but Cantanzaro, Stetson and colleagues⁷ demonstrated that rheumatic fever could be suppressed by controlling streptococcal infection without suppressing the ASO response. The immune response was therefore not a primary event in the development of rheumatic fever.

The carrier state has also been investigated. Rammelkamp⁸ has described the ordinary course of an untreated infection. Group A streptococci gradually disappear and after three or four weeks can no longer be recovered from cultures of the nasal membranes. Occasional colonies persist in the pharynx, however, and the majority of untreated subjects continue to harbor organisms for at least four months. Wannamaker⁴ showed that nasal carriers were more important in dissemination of streptococcal infection than throat carriers because the streptococci in the latter tend to lose the ability to form M-protein, which is essential to infectivity. Nevertheless long survival in

the oropharynx does seem to be important for other reasons than dissemination of infection. In the opinion of Rammelkamp rheumatic fever does not occur unless streptococci persist in the oropharynx.

It has been known for many years that rheumatic fever was more apt to occur in families where it had already been present. Parents who had had the disease were more apt to have children who developed it than parents who had not, but identification of true hereditary factors has been difficult. George Griffiths⁹ has reported a very interesting study of this facet of rheumatic fever. Though children of parents who have had rheumatic fever are more apt to develop the disease, this is only true if they maintain contact with their family. The incidence of rheumatic fever was not higher among children of rheumatic parents if the individual had left his family. The difference in incidence was therefore not hereditary but lay somehow in the household or family.

Three medical students of the Oklahoma University School of Medicine have recently carried out a pilot study¹⁰ which seems to provide another possible link in this long chain of events which ultimately leads to the development of rheumatic fever. Grouping and typing of streptococci were not done but, with this limitation, the data indicated that even intimate exposure did not result in the appearance of streptococci in throat cultures of all individuals exposed; but a correlation appeared to be present between stresses affecting the security of the family and the appearance of positive cultures. Since no clinical infections occurred during this study the data are of limited significance. They suggest however that another set of factors may also be important in this problem, especially in view of Griffiths finding that the familial incidence of rheumatic fever was domiciliary and not hereditary.

The numerous factors which are important in determining the interrelationship between man and the streptococcus deserve careful attention in the hope of adding new avenues by which we may STOP RHEUMATIC FEVER.

Continued on Page 159

HEMOLYTIC ANEMIA

ROBERT JABOUR, M.D.

Quoting from Dameshek, "The spleen remains an organ of mystery. It seems to be a part of the endocrine system; of this real proof is lacking. It may be removed from the body with impunity, but it has many subtle functions connected chiefly with the bone marrow. Ever so often, particularly when enlarged, it seems to bring about serious blood dyscrasis, and its removal may then become essential."

Splenectomy is almost specific in the treatment of Congenital Hemolytic Anemia, which is characterized by *intermittent jaundice*, an *enlarged spleen*, and *periods of weakness and fatigue*. Acute attacks may occur, manifest by *upper abdominal pain*, *nausea*, *vomiting*, *fever*, *increase of anemia* and *jaundice*, simulating an acute surgical abdomen.

Spherocytosis, inherited as a Mendelian dominant trait, is believed responsible for the main features of the clinical disease. These spherical red cells are more fragile than the biconcave discs, and the clinical symptoms appear to be due to the rapid destruction of the spherocytes by the overactive spleen. In an acute hemoclastic crisis, there is a rapid fall in red cells within 24-48 hours. These crises may be precipitated by infections, operations, and other stress situations. Transfusions, may at times, stimulate the overactive spleen to increase its phagocytic function.

Onset of the clinical disease usually occurs during childhood or early adult life. It has been said that the younger the patient at the time of the first crisis, the more severe the disturbance tends to become. Gallstones are a frequent complication, occurring in approximately 60 per cent of cases.

In addition to the clinical picture, corroborative laboratory findings include *spherocytosis*, a *variable degree of anemia*, *reticulocytosis*, an *elevated serum bilirubin*, *increased fragility of the red cells* and a *negative Coombs test*. Splenectomy should be

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done in those patients in whom the diagnosis can be established. Following splenectomy, the *jaundice subsides*, the *anemia disappears*, and the *reticulocytes return to normal*. The spherocytosis (and often the increased fragility of the red blood cells) persists.

Case Reports

CASE I: A white male, aged 15, admitted to the hospital with complaints of pain in the mid-epigastrium, nausea and vomiting. The onset of pain was said to have occurred approximately 48 hours prior to admission, and following the ingestion of hamburgers with onions. The pain was said to be colicky in nature and gradually increasing in severity. The patient stated he had a somewhat similar episode three months previously, which had been of only 12 hours duration, and which was relieved by vomiting and bicarbonates. The day after the onset of the present illness, the patient was noted to be jaundiced. The patient stated that he had a swelling in the left upper part of the abdomen which was not tender. Clay colored stools and dark urine were noted the night prior to admission.

An interesting family history revealed:

1) The father, aged 46, had a history of intermittent right upper abdominal pain, jaundice, weakness, fatigue, and inability to hold jobs because of illness.

2) An uncle, aged 45, had recently had a splenectomy, and also had cholelithiasis for which plans for an operation were being made.

3) An aunt, aged 47, who had a cholecystectomy in 1947, has had recurrent bouts

with jaundice and abdominal pain.

4) A cousin, aged 12, had been hospitalized for an anemic condition three years previously. He had failed to respond to conservative therapy, including transfusions, and a splenectomy had been performed with excellent results.

Physical Examination: Revealed a well nourished, well developed but acutely ill boy. His temperature was 100² F. Patient was in moderate pain at the time. The patient was deeply jaundiced. The abdomen was scaphoid. The liver was not enlarged, but there was some tenderness to fist percussion over the right costal margin. The spleen was enlarged four fingerbreadths below the left costal margin, was firm and non-tender. The rest of the abdominal examination was negative. A putty-colored stool was noted on rectal examination.

CASE I:			
RBC	—	3,290,000	cells cu/mm
WBC	—	11,800	" "
Hgb.	—	11.7	gms.
Reticulo.	—	10.3	
Spherocytes on the Direct Smear			
Increased RBC fragility (0.69%			— 0.39%)
Coombs	—	Negative	
Ceph. Flocc.	—	3+	
Van den Bergh			
Direct	—	9.7	mgm%
Indirect	—	14.7	"

Alkaline Phosphatase	—	11.05	units
Prothrombin Time		13.9	sec. —77%
Fecal Urobilinogen		340	Ehrlich Units (75-300)
Urine Urobilinogen		5.75	Ehrlich Units (0-1.25)
Albumin		4.83	gms. %
Globulin		2.32	gms. %
Protein		17.4	meq/1.

Figure 1

The patient was put on a high protein, high caloric, low fat diet, and treated conservatively for a period of 10 days, during which time there was improvement in clinical symptoms and subsidence of jaundice. Repeated X-ray examination, including flat plate, cholecystogram, and cholegraffin study failed to reveal the presence of biliary calculi.

Following this a splenectomy was done. The spleen was about five times the normal size and there were two accessory spleens. His course was uneventful. Figure II shows the change that had occurred by the sixth day.

Slide II

RBC	—	4,480,000	compared to	3,290,000
WBC	—	7,100	" "	11,800
Hgb.	—	14.7	" "	11.7
Platelets	—	650,000	" "	365,000
Reticulo.	—	0.4%	" "	10.3%
Van den Berg				
Direct	—	1.81	" "	9.7 mgm%
Indirect	—	3.00	" "	14.7 mgm%

The patient was discharged on the tenth day after operation. Three months later the patient was readmitted with right upper quadrant pain, colicky in nature, nausea, vomiting, clay colored stools and dark urine. Cholecystectomy was performed with exploration of the common duct. The gallbladder contained a few small bilirubinate stones. The patient was discharged on the twelfth post-operative day.

CASE II: The aunt of the patient described above was admitted in May 1956, two days after his discharge, following the splenectomy. She was 47 years old and was admitted with a history of malaise, muscular aches and pains and anorexia of four days duration. Six hours prior to admission she had a fairly sudden onset of severe pain in her right chest, accompanied by dyspnea, but no cyanosis. The patient also stated that she had had a chill just prior to the onset of pain in the chest. She denied any previous episodes of this nature.

Past History: There was a known family history of congenital hemolytic icterus. She had a hysterectomy in 1931 and a cholecystectomy in 1947. There had been recurrent bouts of jaundice, and abdominal pain without clay colored stools or dark urine since the chloecystectomy.

Physical Exam: Temp. 105, Pulse 120, Resp. 36, BP 140/55. The patient was slightly obese and appeared accutely ill. Her skin appeared anemic, with a suggestion of icterus. A friction rub was noted in the right lung field with rales noted both anteriorly and posteriorly. There was pain on deep respiration. The liver was not palpable. There was tenderness to palpation in the mid-epigastrium. The spleen was greatly enlarged, filling the entire left upper quadrant, and approximately seven fingerbreadths below the left costal margin, and was firm and non-tender.

CASE II			
RBC	—	2,670,000	
WBC	—	16,700	
Hb.	—	8.7	
Hct.	—	21. %	
Platelets	—	320,000	
Reticulo.	—	2.1%	
Spherocytes on the Direct Smear			
Increased RBC fragility			
Coombs	—	Negative	
Van den Berg			
Direct	—	0.60 mgm %	
Indirect	—	4.40 mgm %	

Figure III

The patient was treated for her pneumonic condition with good response. In the pre-operative period both washed red cells and whole blood transfusions were utilized. At operation a spleen 8-10x normal size and one accessory spleen were found. Examination of the common and hepatic ducts was not remarkable. Her post-operative course was very satisfactory.

CASE II—10 days after operation

RBC	—	4,240,000	compared to	2,670,000
WBC	—	10,100	" "	16,700
Hgb.	—	13.4	" "	8.7
Hct.	—	42%	" "	21%
Platelets	—	632,000	" "	320,000

Figure IV

CASE III: Father of the first patient (Case I) was 46 years old. He gave a history of recurrent episodes of abdominal pain, jaundice, weakness, fatigue, and inability to hold jobs. His first attack dated back to adolescence. There was a history of food intolerance. His abdominal pain was said to occur in the mid-epigastrium, or in the right upper quadrant and would last approximately a week and then subside. The patient then noted belching, bloating or fullness for another two-three weeks. The patient's mother died with "yellow jaundice, dropsy and liver disease at age 39." He was a welder by profession, but due to his chronic debilitating condition, the patient and his family had a significant socio-economic problem.

Physical Examination: Revealed a fairly well developed white male, who appeared somewhat pale and apathetic. There was a slight icteric tint to the sclerae. The liver was palpable two finger breadths below the right costal margin, was firm and non-tender. The spleen descended two-three finger breadths below the left costal margin and

was also firm and non-tender. No other significant physical finding.

CASE III

		Post.Op	Lab Work
RBC	— 4,180,000	Ceph. Flocc.	- 3+
Hgb.	— 12.2	A/G Ration	
WBC	— 12,600	Albumin	- 2.8
Reticulo.	— 1.2%		
Spherocytes on Direct Smear		Globulin	- 4.0
Coombs — Negative		Total Prot.	-16.4 meq/L
Total Bilirubin—1.7 mgm%			

Figure V

With but a slight elevation in bilirubin and reticulocyte count, and with a fairly normal hemogram, the optimal time for splenectomy seemed present. Marked venous congestion with evident portal hypertension was noted at operation. The liver appeared somewhat granular, firm and fibrosed, compatible with a diagnosis of biliary cirrhosis. The gallbladder was markedly enlarged and tense. No calculi were palpable but cholecystic disease was present. The spleen was three times normal size, and densely adherent to the surrounding structures. These fibrous and calcific adhesions, later encountered, gave rise to considerable venous oozing, and made delivery of the spleen difficult with resultant raw surfaces. The immediate post-operative course was satisfactory, except for a persistent drainage for a few days. The patient's general course was good, and he was discharged on the tenth post-operative day.

Discussion

Each of the three cases presents interesting facets of this disease. The first, a 15 year old boy whose condition was diagnosed shortly after the first clinical manifestations of the disease, had the complications of cholecystitis and cholelithiasis.

The second presents a middle aged white female who previously had had a cholecystectomy but had had a recurrence of abdominal complaints and jaundice and a hemolytic crisis had been precipitated by a pneumonic condition.

The third case showed the possible effects of longstanding untreated congenital hemolytic disease, with its attendant complications, and resultant liver disease and portal hypertension.

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Chorio-Adenoma Destruens *and* Choriocarcinoma

WILLIAM E. HOOD, Jr., M.D.

Hydatidiform mole is uncommon. It occurs in only one of 2,000 to 2,500 pregnancies. Its malignant counterparts chorio-adenoma destruens and choriocarcinoma occur much more rarely. When it is remembered that the normal trophoblasts display invasion of the uterine wall and blood vessels for their very existence in normal pregnancy, it is not surprising that malignant forms exist. It is surprising that they are not more prevalent. The diagnosis of these tumors present many difficulties and pitfalls. It behooves all practitioners of obstetrics to be aware of these conditions and their import to the young female.

History

Mrs. R. E. C., an 18 year old white female secretary, prima gravida, was first seen in the outpatient department of the U. S. Naval Hospital in Memphis, Tennessee, in December 1955. The chief complaint was amenorrhea of two months duration. Menstrual history revealed the menarche to be at age 13 years with the onset of a 28 day cycle. Menstrual periods were five days duration with moderate cramping dysmenorrhea the second and third days. Her last normal menses occurred November 4 through 9, 1955. The usual subjective symptoms of pregnancy were present and the uterus was found to be slightly enlarged, suggesting early pregnancy. On February 13, 1956 the patient noticed the onset of vaginal spotting with an increased amount of clear vaginal discharge. On March 25 severe pelvic pain preceded a profuse vaginal hemorrhage, followed by the passage of a large mass of "grape-like" tissue. Pathological examination of the tissue revealed a mass of cystic structures with a considerable amount of fresh and clotted blood. The specimen weighed 919 grams and measured 15 x 9 x 5.5 cm. Microscopic diagnosis was hydatidiform mole. On admission to the hospital a pelvic examination revealed uterine enlargement compatible with three to four months

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gestation. There was a separate soft cystic mass thought to be ovarian filling of the pelvis. On March 27, 1956 due to continued hemorrhage a curettage was performed. The curettings revealed fragments of decidua, blood clot and trophoblasts. No evidence of malignancy was reported. It was thought that treatment should be expectant. On June 4, 1956, three months after curettage, she consulted her physician in Oklahoma City, because of continued vaginal spotting and intermittent moderate bleeding. Pelvic examination revealed no uterine enlargement or adnexal massing. Moderate adnexal tenderness was present bilaterally. A Papanicolaou smear taken at this time was Class II with sheets of atypical columnar cells, many showing variation of nuclear size. A Friedman test was negative. On June 9 in St. Anthony's hospital at curettage the uterus was sounded to 2¾ inches. A softened area was noted in the left cornu during curettment. Bleeding was minimal. Microscopic examination revealed proliferative endometrium with large areas of hyalinization and partial calcification with inflammation. Hemoglobin on this admission was 11.4 grams. She was next seen on August 12, 1956 with marked bleeding, palpitation, dizziness, dyspnea and cramping pelvic pain of two weeks duration. Hemoglobin was 8.6 grams. On August 13 at curettage the cervix was 2 cm dilated. A large black rubbery mass appearing to be endometrial tissue was seen clinging to the cervix. Its removal resulted in brisk hem-

orrhage. The uterus seemed slightly enlarged but could be sounded only to $2\frac{3}{4}$ inches. Microscopic diagnosis was endometrium with groups of trophoblastic cells without necrosis. (Chorio-adenoma destruens and choriocarcinoma could not be excluded.) A Friedman test was positive although she denied absolutely on several occasions any possibility of pregnancy. On August 23rd a roentgenogram of the chest was negative. A quantitative Aschem-Zondek test for gonadotropic hormone excretion done on 23 day old rats was positive in dilutions up to 1:200,000. On October 8, 1956 a pelvic examination was essentially negative except for 3° uterine retroversion. Hemoglobin was 11.4 grams. On October 23 a repeat Aschem-Zondek test was positive in dilutions up to 1:100,000. At this time the patient left Oklahoma City to join her husband now in California. She returned to Oklahoma City on December 8, 1956 with a history of being asymptomatic but amenorrheic. She did report a very light brown vaginal discharge on one or two occasions. On about December 1 she noted a severe generalized headache unrelieved by medication. During the next eight days three or four similar episodes occurred. These headaches were not localized. There were no additional complaints. On December 10 at approximately 9 a.m. the patient noted the onset of a severe right unilateral headache with paralysis of the left arm and leg. On admission to the hospital she was alert and cooperative. Examination revealed a left hemianesthesia and hemiplegia. The right pupil was dilated. A neurosurgical consultant's impression was intracranial hemorrhage. A ruptured cerebral aneurysm or hemorrhage secondary to metastatic tumor were the suggested etiology. In view of the patient's poor condition no additional studies were performed. At approximately 2 a.m. the patient was noted to have a respiratory arrest. Caramine injections and artificial respiration failed to revive her. She was pronounced dead at 2:30 a.m. on December 11, 1956. An autopsy was performed on December 12, 1956 at 8:00 a.m.

Discussion

Benign moles are adequately treated by evacuation of the uterus. Following evacua-

tion of the uterus the gonadotropic hormone excretion returns to negative within three months period in 96 per cent of cases. However, the persistence of an elevator titer does not necessarily indicate the presence of choriocarcinoma, *provided the titer does not rise*. The longest persistence of a positive titer was ten months in a series of 54 cases reported by Lane.²

Malignant mole or chorio-adenoma destruens is defined as invasive mole which *does not metastasize*. The malignant nature being invasion of the uterine wall and blood vessels without tissue destruction. The mortality in reported cases results primarily from perforation of the uterus with hemorrhage and sepsis. The continued trophoblastic activity results in continued gonadotropic hormone excretion as would be expected. With hysterectomy as the treatment of choice, a 100 per cent cure rate can be expected according to Hertig and Sheldon.¹ The diagnosis of malignant mole, however, is satisfactorily made only on examination of the hysterectomy specimen. Curettage is almost uniformly unreliable since choriocarcinoma and malignant mole are invasive in nature with the bulk of the tumors being within the uterine wall beyond the range of the curet.

It is generally agreed that choriocarcinoma is universally fatal although cures have been reported. Most authors agree that cures if reviewed critically would fall into the category of malignant mole or syncytioma (retained products of conception at the placental site following delivery or abortion). The diagnosis of choriocarcinoma depends upon (a) proof of distant metastasis, (b) increasing gonadotropic titer or (c) microscopic examination of the uterus. An intervening pregnancy will result in an increasing gonadotropic hormone excretion. Since early pregnancy is extremely difficult to rule out, the diagnosis then seems to depend entirely on the hysterectomy specimen or proof of distant metastasis.

In the case at hand the continued hemorrhage combined with high levels of gonadotropic hormone excretion for longer than six months seems to favor the diagnosis of either malignant mole or choriocarcinoma.

Since the possibility of an intervening pregnancy has been satisfactorily eliminated, hysterectomy was recommended. A diagnosis of benign mole could not be absolutely excluded. In view of this she desired to retain her child bearing function even though she was fully aware of the possible consequences. Until 11 days prior to her death the patient was well, without evidence of metastasis, eight months since passage of the mole.

At autopsy a 4.5 cm. hemorrhagic necrotic mass was found occupying the entire fundal portion of the endometrial cavity. There were no pelvic adhesions and no evidence of local metastasis. No abnormalities were noted in either adnexa. Examination of the lungs and liver failed to reveal any grossly or microscopically identifiable tumor nodules. The brain contained a large 8 x 5 x 3 cm. intracerebral hematoma in the right temporoparietal region which was surrounded by a light brown and gray halo of tissue grossly felt to represent tumor tissue. Microscopic examination revealed invasive trophoblastic cells within the uterine wall. Serial blocks from the brain tissue failed to reveal the etiology of the hemorrhage. Only hemorrhagic and necrotic brain tissue was present with no recognizable metastatic tumor cells. The microscopic sections were reviewed by numerous pathologists and a final diagnosis of choriocarcinoma with in-

tracerebral hemorrhage probably secondary to metastasis was made.

Summary

1. A case of hydatidiform mole is presented with continued uterine hemorrhage and high levels of gonadotropic hormone excretion for longer than eight months following its passage.
2. A brief review of the diagnosis and treatment of benign mole, chorio-adenoma destruens and choriocarcinoma is presented.
3. Final diagnosis of choriocarcinoma was made by autopsy despite failure to definitely identify a metastatic lesion in the brain.
4. This report is presented with the hope that all practitioners of obstetrics may be made more aware of the difficulties associated with the diagnosis and management of these uncommon obstetrical conditions.

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ADDENDUM: I would like to express my thanks to James Pitts, M.D. for permitting me to use his private case for this presentation and to William T. Snoddy, M.D., Pathologist at St. Anthony's Hospital for his help in the formalization of this paper.

(601 Northwest 9th, Oklahoma City, Oklahoma)

PLAN TO ATTEND
OSMA ANNUAL MEETING
MAY 5, 6, 7
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PRESIDENT'S LETTER

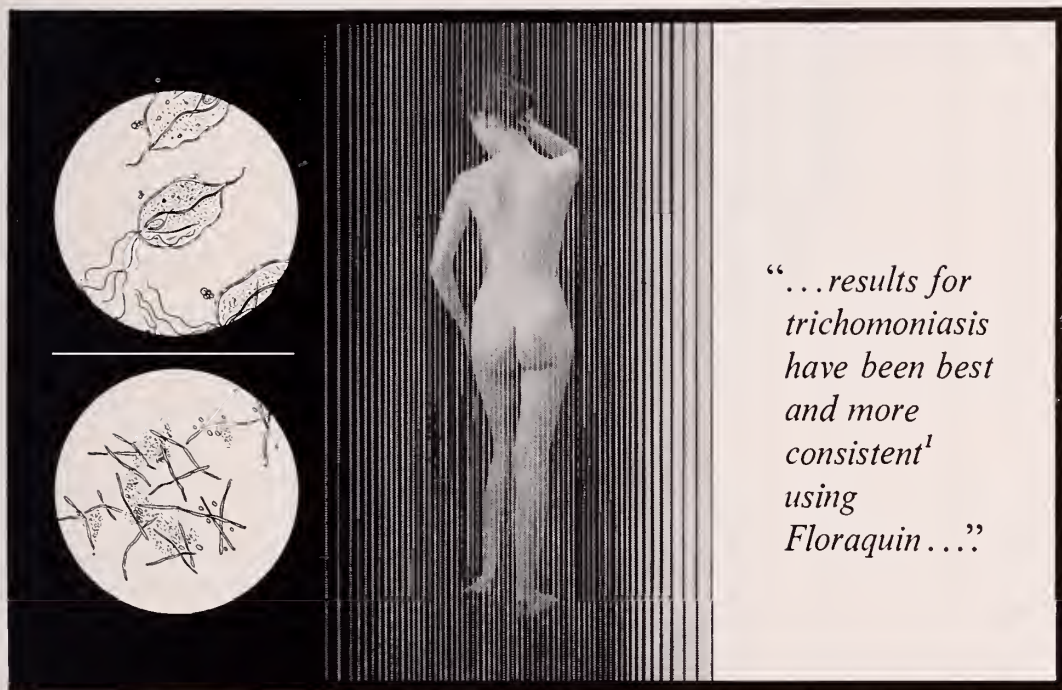


We are living in a most remarkable era of time. Our profession has witnessed more scientific advances in medicine, during the last fifty years, than had occurred in all previous recorded history. Science has brought many of our so called "empirical practices" into the fold of reason and explanation. Science has likewise directed our endeavors into new and uncharted areas of therapy, with a response on the part of many of our educators, of utter abandon of the individual or person.

This pseudo-scientific cynicism is, to my mind, thoroughly un-becoming to the medical profession and behooves our criticism. We should always welcome improvement and advances in medicine, but we must at all times keep in mind we are applying these to human beings like ourselves. We should be reminded of Section One of the American Medical Association's Principles of Medical Ethics.

"The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion."

John Fleck Burton, M.D.
President



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Pitt¹ recommends vaginal insufflation of Floraquin powder daily for three to five days, followed by acid douches and the daily insertion of Floraquin vaginal tablets throughout one or two menstrual cycles. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

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SEARLE



I take pleasure in introducing to the physicians of Oklahoma this new section in their Journal. It is with self-warming pride that we of the Medical Center will lay before you in more or less synoptic fashion a picture of the work that we are doing. We trust that those of our people who are very close to the origin of medical knowledge will be able by this means to informally bring you useful information and a deeper understanding of the forces of nature expressed in disease that are being brought under control. Perhaps, in time, as we get better acquainted there can be an exchange of ideas relating to the philosophy of medical practice, medical education, medical service and medical research that will bury forever the ghost of a dichotomy that seems to hover over us.

To the editors of the section I offer my best wishes and what help I can toward accomplishing the aims set out; to the editors of the Journal my thanks for these pages; and to the readers I send my warmest regards.

Sincerely,

Mark R. Everett

*Director and Dean
University of Oklahoma
Medical Center*

Pathogenesis of Herpes Simplex Virus

L. VERNON SCOTT, Sc. D.

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The virus of herpes simplex, commonly called "fever blister" or "cold sore" virus, is one of the most prevalent infectious agents of man. Animals are infected only experimentally. It can be isolated in the laboratory with relative ease.¹

The host responds to a primary infection with this virus as it does to any other infection with the production of antibodies which can be demonstrated by the usual serological tests, such as neutralization, complement fixation and hemagglutination.² According to Scott and colleagues³ the primary attack may produce diseases of the skin, mucous membranes, eye and its enveloping tissues and central nervous system, as well as generalized infections.

Following a primary infection, recurrent attacks occur in persons who have demonstrable neutralizing antibodies. With the primary infection there is usually a systemic illness which may be quite severe and sometimes fatal. However, in only about 15 per cent of the people does the first invasion or primary infection lead to clinical symptoms. In about 85 per cent there are no clinical indications of infection with the virus. In these subclinical cases the only proof of the disease is the detection of antibodies in the blood. Individuals who have recovered from either a manifest or subclinical infection become carriers of this virus. Following nonspecific stimuli, such as shock, menstruation, emotional upsets, fever and unrelated infections, recurrent manifestations of this virus become apparent in the host. He then becomes a carrier of the virus and he can spread it to other susceptibles. The nature and site of the lesions produced influence the spread. The lesion is a sharply defined group of thin-walled vesicles on an erythe-

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matous base. These may occur on any area of the skin or mucous membranes with a predilection for the mucocutaneous junctions. The vesicular fluid contains the virus and when the lesions are located in the mucous membranes of the mouth the tops of the vesicles may be eroded away and thus the saliva is infectious.

This virus has been isolated from diseases of the skin known as recurrent herpes simplex (fever blister), eczema herpeticum (Kaposi's varicelliform eruption) and traumatic herpes. It has been found in acute gingivostomatitis, herpes labialis, herpes progenitalis and vulvovaginitis of the mucous membranes and mucocutaneous junction. Herpes simplex infections of the eye may appear as a conjunctivitis or more commonly as a keratoconjunctivitis and a meningoencephalitis develops when the virus invades the central nervous system. This virus has been isolated from generalized infections by Womack and Randall⁴ and Foerster and Scott⁵ from cases of erythema multiforme exudativum; by Morgan and Finland⁶ from a case of atypical pneumonia and erythema multiforme exudativum; by Zuelzer and Stulberg⁷ from a case of fulminating visceral disease and hepatitis in infancy and by Quilligan and Wilson⁸ and McDougal and colleagues⁹ from fatal infections in newborn infants.

In recent years increasing attention has

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been focused on the generalized effect of this virus, particularly in newborn infants. Germer¹⁰ has postulated that this virus may be a cause of fetal and infant death. The pathogeneses of the diseases caused by this virus are not clear. The role of a viremia in the spread of the virus from the initial site of infection to various organs has not been carefully studied. The conditions responsible for the activation of latent infections and for the production of a viremia in recurrent infections where a certain amount of residual antibody is presumed to be present are still a mystery. The virus may be acquired from genital lesions during passage out the birth canal but this does not explain the pathogenesis of the disease in infants who are born with herpetic infections.

A study was initiated to determine the effect of herpes simplex virus upon the adult female rabbit and its fetuses. Before fetal experiments could be carried out it was necessary to establish a viremia in this animal and to determine the extent of it. After the establishment of a viremia, studies could be undertaken to determine if virus could get through the placenta to infect the fetuses.

The method of dissemination of herpes simplex virus from the site of initial infection in the rabbit to various organs where disease is manifested may be accomplished in several ways. According to van Rooyen and Rhodes,¹¹ Levaditi in 1922 claimed that this virus spread from the cornea of the rabbit by way of the retina and optic nerve and Goodpasture and Teague^{12, 13} demonstrated inclusion bodies in sections of nerve tissue and in the endothelial cells of blood vessels following inoculation of the virus on the cornea of the rabbit. This was evidence that a route of dissemination of the virus was along the nerve tracts. However, they suggested that the blood may sometimes contain the virus. During the same year Marinesco and Draganesco¹⁴ reported that this virus passed through the tissue spaces and vessel sheathes of nerve cells. Goodpasture^{15, 16} continued to present evidence to support the idea that the herpes virus travelled along the axis cylinders of peripheral nerves and so entered the central

nervous system pathways. Since viral isolation technics are now available a critical study of this mode of dissemination is indicated.

Field¹⁷ in 1952 studied the pathogenesis of herpes simplex encephalitis following corneal inoculation. Certain histological findings were suggestive of axonic transmission. However, the "lymphatic space" of Marinesco was considered, as well as bloodborne methods of transmission. More recently Boyse and colleagues¹⁸ used radioactive iodine labelled homologous plasma protein following injection of herpes simplex virus into nerves as a means of detection of virus spread. This protein preferentially accumulated at the sites of inflammation. From this study he presented evidence of virus dispersion through tissue fluids surrounding the nerves rather than along the nerve tracts. Thus, another method of transmission is suggested.

Early evidence to support the idea that the virus was spread from the initial site of infection to other areas by the blood was given by Doerr and Vöchting¹⁹ in 1920 who were able to produce encephalitis in rabbits following intravenous injection of the virus. Greenbaum and Harkins²⁰ reported that concentrated blood from an infected rabbit could produce a typical keratoconjunctivitis in normal rabbits following corneal inoculation without producing an involvement of the central nervous system. Remlinger and Bailly²¹ used whole blood, defibrinated blood and serum from experimentally infected rabbits as the specimens and succeeded in transmitting herpes simplex virus to other rabbits following intracerebral, intravenous and subcutaneous injections. Gildemeister and Heuer²² in 1929 also demonstrated that the virus could be isolated from the blood of rabbits by animal inoculation and Kipping²³ who described generalized herpetic infections was of the opinion that the distribution of the lesions suggested a dissemination of the virus by the blood stream. Haymaker²⁴ presented pathological studies of herpetic encephalitis in humans in which he found intranuclear inclusion bodies in the brains. He suggested that the spread of the herpes simplex virus from the site of original infection to the central nervous

system could be by means of the blood stream. More recently Ruchman and Dodd²⁵ in 1950 recovered herpes simplex virus from the blood of a patient with herpetic rhinitis.

Earlier, Anderson²⁶ showed experimentally that at certain stages in the development of the chick embryo, the herpes simplex virus spreads to organs distant from the site of inoculation by way of the blood stream. She demonstrated that in such embryos the virus no longer showed its customary ectodermatropism but was capable of attacking mesodermal and endodermal structure with equal ease. This confirmed earlier observations of Goodpasture and Teague.¹²

Zuelzer and Stulberg⁷ in describing cases of fulminating visceral herpetic infections and herpetic hepatitis postulated that the virus was spread from the focus of primary infection by the blood stream. However, Geller and colleagues²⁷ inoculated herpes simplex virus into the veins of human volunteers and was unable to unequivocally demonstrate the virus from either plasma or cellular elements as early as midway through the virus infusion.

Thus, it may be noted that from a survey of the literature the virus was spread 1) along the axons of nerve cells, 2) through the sheathes and fluids surrounding the neurons and 3) by hematogenous dissemination. Whether the virus spreads along the nerve cells or along perineural lymphatics is not known but early evidence involves the nerves and surrounding fluids as pathways of infection. Dissemination through the circulatory system may serve as a pathway of infection because intravenous injections may give rise to herpetic encephalitis. Experimentally, Marinesco and Draganesco²⁸ injected virus into the peripheral extremity of a cut sciatic nerve and herpetic encephalitis developed as a result of blood dissemination. Thus, it would appear that the virus is spread by a combination of methods.

If herpes simplex is present in the blood during infection then there is a possibility that the virus which is in the blood of pregnant mothers may get into the fetus and produce characteristic lesions.

Evidence that a virus could produce con-

genital anomalies was reported by Gregg and colleagues²⁹ in 1942 when they described the malformations in babies being delivered of mothers who had been infected with rubella during the first trimester of pregnancy. The principle defects noted were eye and heart disease, deaf-mutism and possible mental defectiveness. Since that time there have been many reports to substantiate this work. The rubella virus has not been isolated from infected fetuses of man or experimentally infected animals.

Belenky³⁰ reported the presence of the vaccinia virus in the blood and placenta of pregnant animals following vaccination but was unable to detect the virus in the amniotic fluid, umbilical cord, or in the organs and blood of the embryo. Hass³¹ demonstrated that an inapparent infection resulted when mice acquired an infection with lymphocytic choriomeningitis *in utero* and they tended to retain active virus. Mice infected after birth had apparent infections and those that recovered were not carriers for long periods of time. They transmitted the infection to offspring and contacts. This is particularly interesting because of 1) the continuous propagation of an infection that is inapparent and 2) the basic difference in response to infection shown by *in utero* infection as compared to the response of mice subjected to infection after reaching maturity. Berry and Slavin³² were able to isolate herpes simplex virus from the blood of infected adult mice but not from their embryos. Scheidegger³³ reported that the embryos of mice died when the adults were inoculated with psittacosis or ectromelia virus. Winsser and colleagues³⁴ discovered a viremia in a newborn human whose mother suffered paralytic poliomyelitis shortly before childbirth and Schaeffer and colleagues³⁵ isolated poliovirus from the aborted fetus of a mother who had the disease. Quilligan and Wilson⁸ and Williams and Jack³⁶ described fatal herpes simplex infections in newborn with typical skin and liver infections.

In view of the re-evaluation of the pathogenesis of poliomyelitis upon the detection of a viremia stage in that disease by Bodian³⁷ and Horstmann³⁸ this study was undertaken. It was designed to determine if

herpes simplex virus could be demonstrated in the blood of the rabbit at varying hours after inoculation of the virus on the scarified cornea and, if so, then to further determine if the virus could pass through the placenta of an infected, pregnant rabbit during the viremia stage and invade the fetal tissues.

Materials and Methods

Virus: The HF strain of herpes simplex virus, obtained from the Communicable Disease Center in Montgomery, Alabama was used. It had been propagated 60 times on the chorioallantoic membranes (CAM) and nine times in the yolk sacks (YS) of the developing chick embryos, three times in the brains of white Swiss mice (MB) and two times on the corneas of rabbits. The seed virus was inoculated into the YS of the chick embryo and the resulting infected allantoic fluid was harvested and used as the inoculum. The LD₅₀ of the viral inoculum as determined by the YS method was greater than 10⁷ per ml.

Animal inoculation: Adult white rabbits which are highly susceptible to ocular infection with herpes simplex virus were lightly anesthetized and the corneas of both eyes were scarified, deep enough to penetrate the corneal epithelium, with sterile wire gauze. One-tenth ml. of a homogenous suspension of virus containing at least 10⁴ ID₅₀ for YS was placed in the left eye and an equal volume of sterile diluent was placed in the right eye. The eyelids were massaged over the corneas to rub the inocula into the scarified areas. Either sterile skimmed milk or buffered gelatin saline was used as the diluent. All diluents contained 250 units of penicillin and 250 micrograms of streptomycin per ml. These same diluents were used in the preparation of the respective specimens for inoculation onto the CAM and into the YS and brains of mice.

Virus studies in adult rabbits: One ml. of blood was removed aseptically from the marginal ear veins of the rabbits at specified times. Ocular washings were obtained from each rabbit 48 hours after corneal inoculation. Autopsies were performed on rabbits that died and specimens of brain, heart, heart blood, liver, kidney and spleen

were obtained. Rectal temperatures were recorded prior to inoculation and at the time each specimen of blood was taken.

The presence of the virus was determined by the inoculation of prepared specimens of blood, ocular washings and tissue homogenates of autopsy organs onto the CAM. Two dilutions of each specimen were used (1:2 and 1:20) and 0.1 ml. of each dilution was inoculated onto the CAM of the developing chick embryo according to the method of Scott¹ with minor modifications. The embryos were incubated 72-96 hours at 36° C to allow for virus proliferation. The inoculated areas of the CAM were removed and the presence of the virus was determined by the production of plaques on each membrane. Six embryos were used for each dilution of each specimen. When results were doubtful with the first inoculated CAM they were homogenized and prepared as the specimens and reinoculated into a second group of embryos. To confirm the results obtained by the CAM inoculations, selected specimens were inoculated into the YS and the MB. Virus neutralization technics were used to identify the isolated virus.

As controls, a group of developing chick embryos was inoculated via the CAM route with appropriate dilutions of 1) normal blood and buffered gelatin saline, 2) normal blood and sterile skimmed milk, 3) normal blood, buffered gelatin saline and virus and 4) normal blood, sterile skimmed milk and virus. These were treated in the same manner as the rabbit specimens. A portion of the initial rabbit inoculum was placed onto the CAM of the chick embryo and intracerebrally into mice to demonstrate infectivity.

Fetal studies: Fourteen days after breeding, six young adult white female rabbits were lightly anesthetized with ether and 0.1 ml. of the virus suspension was massaged into the scarified cornea. One ml. of blood was removed aseptically from the marginal ear veins of the rabbits at 24, 48 and 54 (just prior to surgery) hours and every 12 hours thereafter through 180 hours. The presence of the virus in these samples, as well as in 48 hour ocular specimens was determined by the production of lesions on the CAM.

Fifty-four hours following inoculation, the rabbits were anesthetized with ether and surgical procedures were used to remove one gravid horn of the bifurcate uterus. The other horn was left intact so that the rabbit might go to term and deliver.

The fetuses from each rabbit were dissected from the excised uterine horns, washed thoroughly with sterile physiological saline and ground in sterile tissue grinders. This material was diluted 1:2 with buffered gelatin saline and 0.1 ml. of this homogenate of fetuses from each rabbit was inoculated onto each of eight CAM. The inoculated embryos were incubated for 72 hours. At this time the membranes were harvested and examined for typical herpes simplex plaques which would indicate the presence of the virus in fetal tissue.

Results

Virus studies in adult animals: Herpes simplex virus was isolated from the blood of rabbits at varying times following inoculation of this virus on the scarified cornea as seen in Table 1. It was found as early as 24 hours and as late as 180 hours after inoculation. Positive blood specimens were obtained from each rabbit which had positive corneal infections. However, not all blood specimens were positive at the designated hours. The 24, 48, 54, 60 and 96 hour specimens appear to be the optimal times for the demonstration of the virus. No virus was noted in the 78 and 102 hour samples.

The virus was cultured from the ocular washings of the infected eye of each rabbit 48 hours after inoculation. This eye and its enveloping membranes exhibited severe swelling, redness, and injection with multiple vesicles on the cornea and membranes. Later the cornea became cloudy. Specimens taken from the control eye which appeared

essentially normal yielded no virus.

In most cases, the rectal temperatures of the rabbits rose steeply from the normal during the 48 to 108 hour period and then returned to normal in those rabbits that did not die. The temperatures taken just before death were sub-normal.

The virus was isolated from certain organs upon death of the animal as shown in Table 2. The organs from which the virus was sought were brain, heart blood, heart, kidney, liver, lung and spleen. All animals that were autopsied exhibited central nervous system involvement resulting in convulsions prior to death. The virus was not isolated from all specimens of all organs from each rabbit. However, part of the samples from each rabbit contained virus. Rabbit 10 appeared healthy three months after inoculation. This animal developed symptoms of central nervous system involvement and died after receiving subcutaneous injections of formalin inactivated mouse brain propagated herpes simplex virus. Virus was isolated from five autopsy organ specimens. Rabbit 25 apparently recovered from the initial infection of the cornea and viremia and 14 days after inoculation delivered three offsprings. At this time she developed a severe recurrent herpetic conjunctivitis in the previously infected eye and died 48 hours later after exhibiting central nervous system involvement. Virus was isolated from the eye, brain and liver of this animal.

Fetal studies: Herpes simplex virus was isolated from the fetuses of six rabbits which had been infected 54 hours prior to surgical removal of the embryos. The virus was also isolated from the ocular washing and blood samples (24, 48 and 54 hours) of these animals. The adult rabbits were 14 days pregnant when inoculated. The isolated virus was identified as herpes simplex virus

Viremia in Rabbits after Corneal Inoculation

Hours at which blood samples were taken	24	48	54	60	66	72	78	84	90	96	102	108	120	132	144	156	168	180
Viral isolations	16	16	12	13	4	5	0	8	1	13	0	8	6	7	5	3	3	4
No. isolations attempted	22	22	13	16	5	16	2	17	5	17	4	11	11	11	6	6	5	5

Table 1

Rabbit	Elapsed time between inoculation and death	Presence of virus in organs						
		Brain	Heart Blood	Heart	Kidney	Liver	Lung	Spleen
1	96 hours	+	+	—	—	+	—	+
3	21 days	+	+	U	U	U	U	U
10	3 mos.	+	+	—	—	+	+	+
13	21 days	+	+	+	+	+	+	U
14	23 days	+	+	+	+	+	+	+
19	156 hours	+	U	—	U	+	+	+
25	14 days	+	U	U	U	+	—	U

+ Virus isolated on CAM

— Virus not isolated on CAM

U Isolations not attempted

Table 2

by the neutralization technic. Table 3 shows a comparative titration of this virus in the presence of specific immune serum and in buffered gelatin saline.

Discussion

The demonstration of the virus in the blood of rabbits after establishment of corneal infection with herpes simplex virus proves conclusively that the virus can be present in the blood during certain stages of the disease. The isolation of virus from the various organs indicated the wide dissemination of the virus. Even though the tissues were thoroughly washed it is not known whether the virus which was isolated from the tissues came from virus in the blood or from foci of infection in the tissues.

It is interesting to note that virus was isolated as late as 180 hours (nearly eight days) after infection. It has been shown by Scott and colleagues³ that following the primary infection in children the circulating neutralizing antibodies against the virus appear in the blood as early as the fourth day of illness and rise steeply. The majority of the 31 children in his study had a neutralizing titer of 1:16 by the eighth day after onset. Perhaps the reason the viremia endpoint was not reached by the eighth day in the rabbits was that the time of inoculation was used as the beginning time for experimental work on rabbits and the work of Scott and colleagues³ used the onset of primary infection as the beginning time. There

is an incubation period of three to five days in human beings which could account for this difference. Experiments to correlate the presence of virus in blood and the production of neutralizing antibodies are being done.

The death of rabbit 10 during vaccination three months after initial infection is of interest for two reasons. First, infectivity of the vaccine for CAM could not be demonstrated however, herpes simplex virus was isolated from the brain of the rabbit at autopsy, indicating a latent virus might have been activated. Good and Campbell³⁹ demonstrated that a latent herpes simplex encephalitis could be activated by the production of anaphalactic shock in their animals. The immunization procedure in rabbit 10 had been in progress for three weeks. It consisted of the subcutaneous inoculation of mouse brain which contained the virus. The amount of mouse brain protein in ration to virus protein was extremely high. Therefore, a hypersensitivity reaction produced by the immunization procedure may have been the mechanism which triggered the recurrent attack. Second, there should have been residual antibodies present to prevent this recurrent attack. Following a primary attack in humans a certain level of neutralizing antibodies remained for many months according to Jawetz and Coleman.⁴⁰ However, Wenner⁴¹ noted a complete disappearance of antibody from the blood of a

Inoculum	Dilution of virus							
	undiluted	10 ⁻¹	10 ⁻²	10 ⁻³	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶	10 ⁻⁷
Virus-antiserum mixture	++++	++++	+++	++	++	+	—	—
Virus-saline mixture	++++	++++	++++	+++	+++	+++	++	+

++++ CAM heavily infected, plaques too numerous to count
 +++ 16-25 plaques on CAM
 ++ 15-6 plaques on CAM
 + 1-5 plaques on membrane
 — no plaques on membranes

Table 3

20 month old infant about seven months after recovery from a primary attack of eczema herpeticum. Antibody studies were not done on this rabbit therefore, it is not known if any residual antibodies were present to neutralize the virus.

Rabbit 25 experienced a recurrent attack at the birth of her offsprings. Whether the killing attack was a continuation of the primary attack or a recurrent attack of a latent virus is not known because viremia studies were not continued throughout the fourteen days. However, the keratoconjunctivitis had subsided and neutralizing antibodies should have been formed to prevent the recurrent attack.

The isolation of herpes simplex from the fetuses of rabbits does not prove that the virus was being proliferated there however, it probably was. In the adult the viremia could be due to sporadic showering of the virus into the blood from the foci of primary infection. However, in the fetus it probably is different. The virus could have been transported to the placenta by the maternal circulation where it entered the fetus and a new foci of infection might have been established. How the virus got across the "placental barrier" and into the fetus is a good question.

It is not surprising that the virus was proliferated in embryonic tissue. It has been well established that this tissue is more susceptible than adult tissue. Anderson²⁶ demonstrated the special susceptibility of chick embryo to this virus and Kilbourne and Horsfall⁴² showed that newborn mice were more susceptible than older animals.

The role of passive antibody in the protection of human fetuses has not been established. There is ample proof that about 93 per cent of the people in the lower income brackets and 37 per cent in the high income brackets have demonstrable neutralizing antibodies to this virus following primary infection. It is presumed that these antibodies would be passively transferred and protect the susceptible fetus. There is clinical proof that the newborn humans have become infected during passage out the birth canal from mothers who were suffering genital infections. In these cases the passively acquired antibody was not effective in the prevention of the neonatal infection and these children were liable to a special risk. Zuelzer and Stulberg⁷ were of the opinion that maternal antibodies are not adequate for the protection of premature infants, probably because of a special susceptibility of their tissue. It seems probable that a viremia is a frequent happening in primary herpetic infections in infants. The neutralizing antibodies are presumed to be effective in the prevention of a viremia in humans during a recurrent infection. In the primary infection the visceral lesions which are seen in infants are seldom experienced in older children. It is assumed that if specific immunity is lacking in both groups a non specific maturation of tissue, in analogy with the animal experiments, could be the answer for the difference in susceptibility of the two age groups.

If in pregnant female adults who do not have sufficient protective antibodies, a viremia were to develop during the recurrent infection then it is possible that a trans-

placental infection might occur. Whether the herpes simplex virus can cause fetal malformations in a manner similar to rubella is not known but it is possible that damage to differentiating embryonic tissue could take place. There is no evidence in human beings that a carrier state develops *in utero* without demonstrable neutralizing antibodies as in mice with lymphocytic choriomeningitis.

Summary

Herpes simplex virus was isolated from the blood, certain organs and the fetuses of adult white rabbits following inoculation of the virus onto the scarified cornea. The virus could be detected in the blood as early as 24 and as late as 180 hours following inoculation. The virus was demonstrated in the specimens by the production of herpetic plaques following inoculation of the specimens onto the chorioallantoic membranes of the developing chick embryo and was identified by specific neutralization procedures.

Recurrent infections were observed in two rabbits, one following an immunization procedure and another following birth of offsprings. The possible triggering mechanisms are discussed.

The possible role of a viremia in fetal infections in human beings, the relationship of maternal antibodies to fetal and neonatal infection, the susceptibility of fetal tissue to viral infection and the possibility of fetal malformations due to viral infection are discussed.

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Six names have been added to the staff at the Oklahoma University Medical Center during the current school year (left to right): Seated—Raymond Bower, Ph. D., (Microbiology), Miss Edna Schmidt, B.A., (Physical Therapy), M. J. Keyl, Ph. D., (Physiology); standing—John E. Allison, Ph. D., and L. G. Gumbreck, Ph. D., (both of Anatomy). McWilson Warren, Ph. D., (Preventive Medicine and Public Health) is not pictured.

New Members of the Faculty

John E. Allison, Ph.D., Associate Professor of Anatomy. Doctor Allison received his B.A. from Concordia College, Moorhead, Minnesota, in 1940; his M.A. from the University of Minnesota in 1947, and his Ph.D. from the State University of Iowa in 1952. His teaching experience includes: Instructor of Biology, Drake University, 1947-49. Instructor in Anatomy, St. Louis University School of Medicine, 1952-54, and Assistant Professor of Anatomy (at St. Louis), 1954-57. His research is concerned with the autonomic nervous system.

Raymond K. Bower, Ph.D., Research Associate, Department of Microbiology. Doctor Bower received his A.B. from the University of Kansas City in 1949 and his Ph.D. from Kansas State College at Manhattan in 1954. He completed a research fellowship at the University of Kansas School of Medicine under Doctor Herbert A. Wenner (De-

partment of Pediatrics, Section for Virus Research). Doctor Bower was Director of the Virus and Rickettsia Division, Indiana State Board of Health. His research interests include: genetics of Newcastle disease virus and studies on tumor-inducing viruses.

Lawrence G. Gumbreck, Ph.D., Assistant Professor of Anatomy. Doctor Gumbreck received his B.A. from the University of Wisconsin in 1927 and his M.A. from Wisconsin in 1929. He was engaged in agricultural work from 1930-37, and returned to academic and scientific pursuits in 1938. Doctor Gumbreck was employed as an entomologist in state and city boards of health in Wisconsin in 1940, 1941 and 1944. He received his Ph.D. degree from the University of Wisconsin in 1945 with a major in Zoology and a minor in Medical Physiology. Doctor Gumbreck was an endocrinologist at Difco Laboratories, Detroit, from 1945 to

1949, and then became Research Associate in Surgery and Lecturer in Zoology at Washington University, St. Louis, from 1949 until 1957. His chief field of professional work and interest is endocrinology.

M. J. Keyl, Ph.D., Assistant Professor of Physiology. Doctor Keyl attended the University of Illinois, Valparaiso University and Idaho State (Navy V-12) and received his B.S. (1947) and M.S. in 1948 in Physiology from the University of Cincinnati. He was employed as Assistant Pharmacologist with the Wm. S. Merrell Co., Cincinnati until 1953. Doctor Keyl received his Ph.D. in Medical Physiology from Cincinnati in 1957. His thesis: "The Distribution and Some Physiological Properties of Naturally-Occurring Choline Esters." During the last year, Doctor Keyl has been studying the renal excretion of citric acid.

Edna Schmidt, B.A., Instructor in the School of Physical Therapy. Miss Schmidt received her B.S. degree from Texas State College for Women at Denton and took physical therapy training at Walter Reed

Hospital, Washington, D.C. She received additional training at O'Reilly General Hospital, Springfield, Missouri, where she also taught part-time at the Physical Therapy School. Miss Schmidt was attached to the 36th General Hospital during World War II through campaigns in Africa, Italy and France. She then served as Physical Therapist at St. Joseph's Hospital, South Bend, Indiana, and received her M.Ed., degree from Marquette University, Milwaukee, in 1955.

McWilson Warren, Ph.D., Assistant Professor of Preventive Medicine and Public Health. Doctor Warren received his B.A. degree from the University of North Carolina in 1951, his M.S.P.H. from the University of North Carolina School of Public Health in 1952, and his Ph.D. from Rice Institute in 1957. His research interests include: parasite physiology, fat metabolism and the fate and uptake of carbohydrates in cestodes; physiological responses of parasite to host strain variations, and aerobic vs. anaerobic metabolism in adult cestodes.

VA Appointments

Alvin W. Paulson, M.D., was recently appointed to the Oklahoma City VA Hospital Staff as Chief of the Out-patient Service. He was graduated from the Washington University School of Medicine in St. Louis, Missouri, in 1932, served his internship at the University Hospital in Oklahoma City, and was a resident for one year in pathology in the same institution. He was in general practice in Clinton, Oklahoma, from 1934 to 1940. Doctor Paulson served in the U.S. Army from September 1940 to December 1945, and again from November 1947 to 1949. He joined the VA in April 1949 and was appointed Assistant Chief Medical Officer of the VA Regional Office in Oklahoma City. He left Oklahoma City in February 1955 to take a position as Chief Medical Officer of the VA Regional Office in Lubbock, Texas. Doctor Paulson succeeded Doctor Chas. W. Robinson as Chief of the Out-patient Service of the Oklahoma City VA Hospital, when Doctor Robinson retired af-

ter 38 years of service. Doctor Paulson is responsible for the supervision of all out-patient treatment furnished in this hospital to veterans with service-connected disabilities.

Jay T. Shurley, M.D., was recently appointed as Chief of the Neuropsychiatric Service at the VA Hospital in Oklahoma City, and as a Professor of Psychiatry, Neurology and Behavioral Sciences. He came to the Oklahoma City Hospital from the National Institute of Mental Health, Bethesda, Maryland, where he was a research section head. Doctor Shurley is a native of Texas and a graduate of the University of Texas School of Medicine in 1942. After serving an internship in Indianapolis he served a residency at Pennsylvania Hospital in Philadelphia as a Rockefeller fellow in psychiatry. He was in private practice of psychiatry and psychoanalysis in Philadelphia from 1947 to 1951, teaching at Jeffer-

son Medical College during the same period. In 1951 he became a member of the Philadelphia Association for Psychoanalysis. He returned to Texas in 1951 to go into private practice in Austin. He also was a lecturer in psychopathology at the University of Texas School of Social Work. Inducted in the Army in 1952, he spent the next two years as a Medical Corps Captain, teaching psychiatry at the Medical Field Service School in Fort Sam Houston. Doctor Shurley went to the National Institute of Health in 1954 as Acting Chief of the Adult Psychiatry Branch of Clinical Investigation. He worked with Doctor John C. Lilly on a project on "human isolation" which with new techniques demonstrated the individual's intense need for some kind of stimulation from the environment. This isolation project is still under way at Bethesda and Doctor Shurley is in the process of developing a similar project at the Oklahoma City VA Hospital.

Hugh B. O'Neil, M.D., recently joined the staff of the Oklahoma City VA Hospital as Chief of the Neurology Section. He also holds an appointment as Assistant Professor of Medicine, Psychiatry, Neurology, and Behavioral Sciences. He is uniquely qualified in that he is certified by the American Board of Internal Medicine and is also qualified in Neurology.

He graduated from Northwestern Medical School and had his medical residency at

Cook County Hospital, Chicago, Illinois. He served as a Major in the U.S. Army from 1941-45. He had three years residency in Neurology at the Denver VA Hospital, and was previously an Instructor at Northwestern. His arrival has permitted the development of the first training program in Neurology in Oklahoma.

Roy W. Teed, M.D., was recently appointed to the Oklahoma City VA Hospital staff as Chief of the Ophthalmology Section of the Surgical Service. Prior to his coming to Oklahoma City he was Chief of the Ophthalmology Section of the Surgical Service of the VA Hospital in Dayton, Ohio. Doctor Teed was graduated from Middlesex University Medical School, Cambridge, Massachusetts, in 1935 and interned at the Middlesex Hospital for one year. Doctor Teed was in private practice from January 1937 to 1952. During this time he spent three years in the U.S. Army as a medical officer. From 1952 to 1955 he received his residency training in ophthalmology at Gill Memorial Hospital, Roanoke, Virginia, and at the University Hospital, Columbus, Ohio. He joined the VA in September 1955 at the VA Hospital, Dayton, Ohio. Doctor Teed is member of the American Medical Association, the Massachusetts Medical Society, and the American Society for Research in Ophthalmology. He also holds an appointment as Instructor in Ophthalmology at the University of Oklahoma.

ABSTRACTS

THE FEATURES AND SIGNIFICANCE OF HYPERTROPHIC OSTEOARTHROPHY

J. F. HAMMARSTEN* and J. O'LEARY**

A.M.A. Archives of Internal Medicine 99:431-441, March 1957

The roentgenologic appearance of onionskin layers or a thin line of new bone along the distal portions of the long bones is characteristic of hypertrophic osteoarthropathy, a disorder that takes its name from the enlargement of the bones seen in the later stages. The authors review observations on 22 patients with x-ray changes indicating hypertrophic osteoarthropathy. All had pulmonary lesions, which were malignant in all but two. Six patients had adenocarcinoma, primary in the lung, and an equal number had squamous cell carcinoma of the lung. Three had fibrosar-

coma of the lung. One patient was seen with each of the following diagnosis: Alveolar carcinoma of lung, small cell carcinoma of lung, undifferentiated carcinoma of the lung, presumptive carcinoma of lung with clumps of malignant cells seen in sputum (operation or autopsy not performed), Hodgkin's disease involving the lung and adrenals, diffuse pulmonary fibrosis, and infected pulmonary infarction. The age distribution ranged from 24 to 83, with a mean of 59, and a preponderance in the sixth and seventh decades. There were 21 men and one woman. The correct diagnosis was made after the first examination in only three of the 22 patients; many were seen by several physicians before the true nature of the disease was recognized.

The most frequent diagnosis applied to the joint disease was rheumatoid arthritis. Diagnosis of Paget's

disease and acromegaly were considered in several patients. The pulmonary disease was most often overlooked or considered to be tuberculosis, cyst, or unresolved pneumonia. Gynecomastia was observed in 10 of the 21 men. Eight of the patients had acromegalic facies, with prominent nose and furrowed brow. Some showed a striking resemblance to one another. It is noteworthy that neither of the patients with benign lung disease had joint pains, whereas 19 of the 20 with pulmonary malignancies had such pains. Clubbing occurred in all but one patient but was usually not noticed by the patient until his attention was directed to the sign. A brawny edema of the legs and periarticular swelling was found in 19 instances. Most of the patients (17) showed a diffuse thickness of the legs or forearms or both. Seventeen patients had joint symptoms as the first evidence of disease; they preceded the chest symptoms usually by more than 18 months. The chest x-ray films were not considered suggestive of malignant disease in three of the 20 patients with neoplasms. Bronchoscopy indicated the diagnosis in only two of the 15 patients with carcinoma who were subjected to this procedure. Examination of the sputum for malignant cells showed such cells in nine of 15 patients. Of the 14 tumors in patients who had thoracotomies, nine were resectable. All in whom the primary tumor was resected showed dramatic relief of symptoms of joints and extremities. The authors conclude that pulmonary neoplasms are the chief cause of hypertrophic osteoarthropathy in this part of the world.

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COMPARISON OF THE HYPERGLYCEMIC EFFECTS OF GLUCOCORTICOIDS IN HUMAN BEINGS

KELLY M. WEST*

Diabetes 6, No. 2:168-175, March-April, 1957

The carbohydrate metabolism regulating (or hyperglycemic) potency of a steroid may be quickly and easily estimated by testing the degree to which it modifies glucose tolerance (as measured by a single blood glucose determination two hours after glucose by mouth). The hyperglycemic potency of a steroid may be accurately estimated by testing only a few subjects if they are tested to both a known and an unknown steroid with similar characteristics of time-action.

Using such a method the carbohydrate metabolism regulating potencies of oral prednisone and prednisolone were measured and no significant difference found.

Under the circumstances of this experiment predni-

sone and prednisolone were more than five times more potent than cortisone acetate in their hyperglycemic effects. Prednisone and hydrocortisone were identical in effect when administered orally in a dosage ratio of one to four.

Older subjects showed a "positive" response to this steroid-glucose test more frequently than younger.

The strikingly similar responses of identical twins to glucose tolerance tests and to steroid-glucose tolerance tests suggest that heredity plays a significant role in conditioning the hyperglycemic response both to glucose loading and to glucocorticoids.

Nondiabetic subjects with a family history of diabetes showed significantly greater hyperglycemic responses to prednisone and prednisolone-glucose tolerance tests than a control group.

The responses to prednisone-glucose tolerance testing of fourteen subjects with an intensely positive family history (both parents diabetic) were no greater than the responses of subjects with a much less significant family history. These latter data are not adequate to permit a final conclusion but suggest that the steroid-glucose tolerance test has only a limited ability to predict the eventual development of diabetes.

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USE OF RADIOISOTOPES IN THE DIAGNOSIS OF ANEMIA

PHILIP C. JOHNSON,* ROBERT M. BIRD,** and WILLIAM L. HUGHES.***

A.M.A. Arch. Int. Med. 100:544, 1957

Two radioisotope techniques are useful in the clinical diagnosis of anemia by allowing one to separate hemolytic anemia and pernicious anemia from other anemias which present with similar clinical and laboratory findings. In pernicious anemia, the intestinal absorption of Cobalt-60 labeled Vitamin B-12 can be measured by determining the percentage of radioactivity excreted in the urine and stool or by the percentage of radioactivity present in the liver area. The vagaries of stool and urine collection makes liver counting more practical for routine use. Homologous erythrocytes can be labeled with radioactive chromium 51 and reinjected. Measurement of the percent of radioactivity remaining on the eighth day gives information of clinical use in the diagnosis of the hemolytic state.

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**Associate Professor of Medicine, University of Oklahoma School of Medicine.

***M.S. IV, University of Oklahoma School of Medicine (presently intern at University of Michigan).

A FAMILY REUNION: A STUDY OF HEREDITARY HEMORRHAGIC TELANGIECTASIA

ROBERT M. BIRD,* JAMES F. HAMMARSTEN,** RICHARD A. MARSHALL*** and R. R. ROBINSON****

New England Journal of Medicine 257:109-109, July 18, 1957

A large family in which 32 of 170 members were affected with hereditary hemorrhagic telangiectasia was studied. The mode of transmission was that of a simple autosomal dominant, and atavism did not occur. Genetic linkage between hereditary hemorrhagic telangiectasia and certain blood groups was sought but not found.

The typical lesion is a macule that resembles a crushed spider, about two to three mm. in diameter, cherry red in color, and not elevated. Great pressure is required to obscure these lesions, and at no time are definite pulsations observed. While the lesions did not pulsate, hemorrhage from the lesions was profuse and pulsatile. The most common sites of hemorrhage were nose, mouth, gastrointestinal tract and genitourinary tract. The lesions were observed in descending order of frequency on the face, lips, nares, tongue, ears, hands, feet and chest. The lesions were seldom found before the third decade and became increasingly frequent with age. Hemorrhage was more severe past 50 years of age and appeared to be more severe in males.

The family showed a remarkable adjustment to a life-threatening malady. Clannish attitudes had been fostered that robbed hemorrhage of its usual import. Independence and resourcefulness were given high value, and possible death from bleeding viewed objectively. Medical research into telangiectasia was encouraged by the group although there was no promise of immediate therapeutic gain.

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SYMPTOMATIC MAGNESIUM DEFICIENCY IN MAN

JAMES F. HAMMARSTEN* and WILLIAM O. SMITH**

New England Journal of Medicine 256:897-899, May 9, 1957

A patient is described in whom magnesium deficiency with confusion, stupor, tremors, and athetoid movements developed after profuse diarrhea and parenteral fluid therapy without added magnesium. The symptoms disappeared with magnesium sulfate therapy, reappeared when this therapy was discontinued and again subsided on reinstitution of the medication.

Magnesium deficiency has been described in chronic alcoholism with tremor, delirium, hallucinations, or convulsions. It has also been reported in patients with long-standing malignant osteolytic disease. The symptoms may be corrected by giving magnesium sulfate one or two gms. intramuscularly every four to six hours.

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HYPERTROPHIC OSTEOARTHROPHY AND CHRONIC ULCERATIVE COLITIS

W. L. HONSKA, Jr.,* HENRY STRENGE,** and JAMES F. HAMMARSTEN***

Gastroenterology 33:489-492, September, 1957

Clubbing of the fingers and the toes has been mentioned as occurring with many gastrointestinal disorders which are accompanied by chronic diarrhea. However, hypertrophic osteoarthropathy with the characteristic periosteal proliferation is infrequently seen in association with ulcerative colitis. The authors report a 10-year-old male who had anemia, diarrhea, weight loss, and clubbing of the fingers and toes for four years. He had been repeatedly examined for congenital heart disease and this diagnosis never confirmed. The x-ray film of the radius and ulna showed the periosteal new bone formation which is the *sin qua non* of hypertrophic osteoarthropathy. The barium enema demonstrated ulcerative colitis. The occurrence of hypertrophic osteoarthropathy secondary to diseases not involving the lungs emphasizes that the syndrome is not always of pulmonary origin. Children with this disorder should be examined for diseases of the gastrointestinal tract.

*Medical Resident, VA and University Hospitals.

**Professor of Pediatrics, University of Oklahoma (presently in private practice in Boulder, Colorado).

***Associate Professor of Medicine, University of Oklahoma School of Medicine, and Chief, Medical Service, VA Hospital.

RESEARCH FOUNDATION

Six major areas of research are represented in the Foundation, ranging from microbiological studies in bacteria to elaborate metabolic balance experiments on patients in the Research Hospital. The work of three sections will be presented in this issue.

* * *

The Biochemistry Section, headed by Doctor Ranwel Caputto, is devoting considerable attention to the relatively little known metabolic functions of Vitamin E. Ascorbic acid synthesis, protein synthesis, and the composition of muscle are being studied in Vitamin E deficient animals. Doctor Caputto's group has recently announced the discovery in muscle of three compounds, heretofore unknown in this tissue. The basic work of this section in muscle biochemistry excites particularly the attention of those interested in the function, growth and wasting of muscle. Future bulletins will describe this work, now in preliminary stages, more fully. For papers published by this Section, see References 1, 2, 3.

The Cardiovascular Section, headed by Doctor Robert H. Furman, is approaching the problem of coronary artery disease through a study of blood fats (lipids). Struck by the tenfold higher incidence of coronary occlusions in men, and the presence of cholesterol in the coronary artery lesion, Doctor Furman's group has made an extensive study of blood fat patterns in men, women, and patients with various endocrine and blood lipid disorders. The blood fats studied, phospholipids and cholesterol, occur largely in combination with proteins (lipoproteins).

They are determined both chemically and after separation in the ultracentrifuge (high speed centrifugation). The latter method permits separation of lipoproteins of varying density, using the same principal by which cream is separated from milk. Mixing the blood fats in solvents of gradually increasing density, lipoproteins of increasing density, can be made to float to the surface.

Analysis of the lipoproteins, formerly done by a tedious optical technique, is now performed by an ingenious and more reliable method, devised recently and described by Doctor Furman and his associates.⁴ The serum samples are spun in plastic tubes, and, immediately on removal from the centrifuge, are frozen in dry ice and acetone. The lipoprotein fraction, layered at the top of the tube, can then be separated from the solution below, simply and accurately, by sawing through the tube beneath the fatty layer. The method represents a significant technical advance for studies in this field.

Two of the lipoprotein fractions examined have proved to be peculiarly related to the endocrine status of the subject, the high density lipoproteins (referred to as "alpha") and lower density lipoproteins (referred to as "beta"). These relationships are summarized succinctly in a paper presented recently at the American College of Physicians Meeting in Boston by Doctors Furman and R. Palmer Howard.⁵

"It is clear from these studies that the serum high density (alpha) lipoproteins and the ratio of high density to lower density (alpha/beta) lipoproteins are sensitive indicators of change in gonadal hormone relationships. Increase in relative estrogenicity, whether by administering estrogen or withdrawing androgen, is always associated with increase in high density lipoprotein concentrations and high density/low density lipoprotein ratios. Increase in relative androgenicity has the opposite effect. The lower density (beta) lipoprotein response is more variable but usually opposite to that of the high density fraction.

"Changes in chemically determined cholesterol and phospholipid levels appear to be determined by the nature of the changes in the major lipoprotein fractions under these conditions. On the other hand, absence of change in serum cholesterol or phospholipid levels does not preclude the possibility of major alteration of the lipoprotein spectrum.

"Whether these serum lipoprotein-hormone relationships are casually related to the marked sex difference in the incidence of coronary artery disease remains to be determined by further study. There is a good agreement among workers in this field that the concentration and physical status of the serum lipids have some etiologic significance in this disease. We feel, therefore, that

further efforts in the direction of the studies described are warranted."

A detailed description of this work appears in the January, 1958, issue of the *American Journal of Medicine*.⁶

Prednisone and cortisone produce changes in the lipoprotein pattern similar to those produced by estrogens. These findings and others, determined by the freeze-cutting technique, were presented to the Central Society for Clinical Research by Doctor Furman and colleagues in November, 1957.⁴

Blood lipid and lipoprotein changes in treated hypothyroid and hyperthyroid patients, and in euthyroid subjects receiving triiodothyroacetic acid (Triac) were described by Doctor Furman and his associates in a paper presented to the American Society for the Study of Arteriosclerosis, in Chicago, in November, 1957.⁷ For other recent papers from this section, see References 8, 9, 10.

The Cancer Section, headed by Doctor Leonard P. Eliel, is engaged in endocrine and chemotherapeutic studies of breast carcinoma and leukemia. The mechanism of action and relative therapeutic efficacy of steroids, antifolic agents, and of hypophysectomy in breast carcinoma have been under investigation for the past three years. The effectiveness of various combinations and sequences of agents in the therapy of acute leukemia of children has also been the subject of extensive study.

Metabolic disturbances in patients with bone metastases are frequent, particularly hypercalcemia and hypercalciuria. Recently, abnormally low serum magnesium levels were encountered by the Cancer Section in a small group of patients. This study was presented to the American Society for Cancer Research in Chicago, April, 1957, and is summarized in the following abstract:¹¹

The Pathogenesis and Management of Metabolic Disturbances in Osteolytic Bone Disease, Leonard P. Eliel, M.D., William O. Smith, M.D., and Agustín S. Alvarez, M.D.

"Metabolic studies in four patients with malig-

nant osteolytic disease have revealed, in addition to hypercalciuria, hypercalcemia, and impaired renal function; hypomagnesemia and renal losses of magnesium in excess of theoretical contributions from destroyed bone. The magnesium losses varied directly with urine calcium. Convulsions were noted in three patients in association with periods of magnesium loss and hypomagnesemia.

"Intravenous administration of a chelating agent resulted in increased urine calcium, but no increment in magnesium excretion resulted.

"Intravenous calcium loading, sufficient to produce hypercalcemia, in two patients without osteolytic disease and with normal renal function, resulted likewise in lowered serum magnesium levels, but striking reductions in urine magnesium occurred, suggesting intracellular ingress, rather than loss, of magnesium.

"Effective reductions of urine calcium and comparable increases in fecal calcium, were observed promptly on institution of protein-free diets in patients with osteolytic bone disease. This measure may be as effective as oral chelating agents and tends to minimize renal damage until specific chemotherapeutic or endocrine measures to curb osteolysis becomes effective.

"It is concluded that 1) magnesium deficit (with convulsive tendencies) may accompany osteolytic bone disease and appears to be conditioned by urinary calcium ion concentration and renal damage, and 2) protein-free diets are an effective adjunct in the management of hypercalciuria and hypercalcemia."

The chemical similarity and associated clinical disturbances of calcium and magnesium, led Doctor Eliel and his group to investigate the possibility that parathyroid function influences the metabolism of magnesium. This work is summarized in the following abstract,¹² and with the results of the above study, was presented by Doctors Eliel and Smith, at the first Oklahoma Colloquia on Advances in Medicine, February 8, 1958.¹³

Some Endocrine, Renal and Nutritional Factors Governing Magnesium Metabolism, Leonard P. Eliel, Wm. O. Smith, Carl Thomsen, and Josephine Hawrylko.

"The effects on magnesium metabolism of parathormone, acetazolamide (Diamox), calcium and phosphate loading, protein deprivation, and Vitamin D have been studied in man, using the metabolic balance technique.

"Two of four patients with hypoparathyroidism exhibited hypomagnesemia. The administration

of parathormone resulted in: 1) disappearance of hypomagnesemia and hypocalcemia, and 2) parallel changes in urine magnesium and calcium, i.e., an initial drop followed by rises to values exceeding control levels. Vitamin D likewise produced parallel urine changes in a hypoparathyroid patient with normal serum magnesium.

"Acetazolamid resulted in disappearance of tetany and prompt phosphorous diuresis, but in only minor changes in serum and urine calcium and magnesium. Severe tetany appeared soon afterwards in association with a marked drop in serum magnesium.

"Intravenous calcium and phosphate loads were followed by falls in serum magnesium attributed to intracellular migration of this ion.

"Intestinal absorption of magnesium was decreased by dietary protein deprivation.

"These studies suggest that: 1) the blood level and renal excretion of magnesium are governed directly or indirectly by parathyroid activity, 2) hypomagnesemia may facilitate the appearance of hypoparathyroid tetany, 3) the serum magnesium concentration may share in the same physical chemical relationships governing calcium and phosphorus concentrations, and 4) intestinal absorption of magnesium, like calcium, is affected by protein intake."

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Reprints will be sent promptly on request. Send requests to 825 N.E. 13th Street, Oklahoma City 4, Oklahoma.

PERSONAL ITEMS

Doctor Ranwel Caputto became head of the Biochemistry Section, July 1, 1957, replacing Doctor C. D. Kochakian who left to become Professor of Physiology at the University of Alabama.

Doctor Raoul Trucco became Biochemist and Associate Head of the Psychosomatic and Neuromuscular Section. July 1, 1957, replacing Doctor Caputto (see above).

Doctor Max Huffman left the Foundation December 1, 1957, to become Director of the Lasdon Foundation Laboratories, Colorado Springs, Colorado.

Doctor Robert H. Furman was named Associate Director of Research of the Oklahoma Medical Research Foundation on January 1, 1958. He continues as Head of the Cardiovascular Section.

PHYSICIANS SUPPORT FOUNDATION

Oklahoma Physicians, 660 of them, had pledged \$150,655 to the support of the Foundation over the next three years, as of January 24, 1958. This most gratifying response and expression of interest is a source of great encouragement to the entire staff.

OTHER SECTIONS TO REPORT

In subsequent issues the activities and work of the Dental, Endocrinology, Psychosomatic and an affiliated section (Behavioral Science) will be described.

Medicare ID Card Issued

Effective immediately, dependents under the "Medicare" program will be required to present a Uniformed Services Identification and Privilege Card (DD Form 1173) before receiving medical care. The card number should appear in item number 6 of the claim form for claims reflecting a period of care beginning subsequent to January 1, 1958. There are two exceptions to the mandatory use of the card for identification purposes: Children under ten years old will not have individual cards and cards will not be required in emergency situations.

Medicare ID Card

In addition to item 6, the expiration date, which is indicated on the card, must be shown in item 7 of the claim form. If the ID card is not available, reasons must be stated in the spaces provided for items 6 and 7 or an explanatory note should be attached to the form.

The issuing branch of service is made evident by the letters preceding the card number. For example, Army issued cards have a prefix of two alpha characters, Navy cards are prefixed by the letter N, Public Health by PH, Coast Guard by CG and Air Force by AF. Such designation does not necessarily reflect the sponsor's branch of service. Interservice arrangements have been

Fifth International Congress of Internal Medicine to Meet In Philadelphia

The world's largest international gathering of scientists and clinicians concerned with internal medicine will take place in Philadelphia on April 24-26 at the Fifth International Congress of Internal Medicine. In issuing the program of the meeting, T. Grier Miller, M.D., Philadelphia, the Congress President, called attention to the fact that in addition to American's leading internists, 81 foreign speakers representing 27 other nations would participate in the Congress' scientific program.

Among the 81 foreign speakers will be leading physicians from the Soviet Union, Czechoslovakia, Hungary, Rumania, and Poland. In announcing their participation, Doctor Miller said, "We are particularly pleased at the acceptance by these physicians of our invitation to join us at this International Congress. Their participation emphasizes that medical science knows no geographical or political barriers. It also represents immediate voluntary and professional implementation of President Eisenhower's invitation given in his recent State of the Union Message to the Soviet Union to join with us in cooperative medical research for the betterment of the health of mankind throughout the world."

Information and registration forms for the Congress can be obtained by writing Mr. E. R. Loveland, Secretary-General, Fifth International Congress of Internal Medicine, 4200 Pine Street, Philadelphia 4, Pennsylvania.

made whereby one service may issue cards to dependents of another branch, depending upon the residence of the dependent and the location of the nearest military issuing facility.

New Mexico Doctors Take Stand On Welfare Problem

The New Mexico Medical Society, with a membership of 509 physicians, has been in the middle of a complex and controversial political storm during the last few weeks over the handling of the state's welfare program.

State President Samuel R. Ziegler reports that after long and heated debate and much publicity, the welfare department accepted the society's offer to render free medical care to welfare patients rather than accept a further reduction in payments from the welfare fund. The schedule originally accepted by physicians represented roughly one-fourth of a doctor's usual fee.

The doctors' offer came after the state's department of public welfare claimed that because of a gradual increase in the number of patients the medical pool fund, established in 1952 with state and federal money, was running dry. The fund is used to provide medical surgical, hospital, dental, and nursing care and drugs for welfare patients.

The department of public welfare wanted the doctors to reduce their fees. The doctors said "no" to that plan and, instead, offered to give free medical care. The welfare department agreed to accept the offer which is to be effective from January 31 to June 30 at which time the physicians will meet with welfare department officials and review the experience. Doctors hope that meanwhile the department will institute and enforce better screening of applicants in the department's 31 county offices.

Russians Invited to Aero Medical Meeting

Russian medical scientists have received a special invitation to attend and participate in the Aero Medical Association's meeting scheduled for March 24-26 in Washington. The meetings attract many foreign scientists, especially from Europe. The invitation to the Russians, sent to the Russian embassy by Ashton Graybiel, M.D., of Pensacola, urges them "to present papers on their current work in space medicine."

Southwestern Surgical Congress To Meet in Houston

The Tenth Annual Meeting of the Southwestern Surgical Congress will be held March 31, April 1-2, 1958, at the Shamrock Hilton Hotel, Houston, Texas.

Four guest speakers will be featured on the program: Ralph F. Bowers, M.D., Chief of Surgical Service, Veterans Administration, Kennedy General Hospital, Memphis, Tennessee; Oscar V. Batson, M.D., ScD. (Hon) Professor of Anatomy, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania; George Crile, Jr., M.D., Division of General Surgery, Cleveland Clinic, Cleveland, Ohio and James F. Nolan, M.D., Los Angeles, California, Assistant Clinical Professor of Obstetrics and Gynecology, University of Southern California School of Medicine, Los Angeles, California.

The program for the three-day meeting will consist of 20 widely diversified scientific papers, panel discussions, roundtable luncheons, and television presentation of "Cancer Surgery" and "Heart and Vascular Surgery."

Topics for the panel discussions are: "Pitfalls In Gallbladder Surgery," "Factors Influencing Results of Cancer Surgery," and "Endometriosis." Questions regarding these topics may be submitted to the Central Office in advance. Address: Southwestern Surgical Congress, 813 Medical Arts Building, Oklahoma City 2, Oklahoma.

"Physicians and Social Security Inclusions"

Marjorie Shearon, who has written a Washington newsletter for many years, devoted her last issue to pro-and-con arguments regarding the inclusion of physicians under social security.

Physicians who are interested in reading Mrs. Shearon's informative and timely article can obtain a copy by writing to her at 9127 Jones Mill Road, Chevy Chase 15, Maryland. Single copies are 15 cents.

Junior Chamber Bestows Honors on Five Physicians

For the 20th consecutive year, the United States Junior Chamber of Commerce named 10 "outstanding young men of 1957" and five of them were physicians. The five doctors were:

Thomas G. Baffes, M.D., Skokie, Illinois surgeon, who developed the first surgical correction for transposing the great vessels of the heart.

Richard A. De Wall, M.D., Minneapolis, Minnesota surgeon, who developed a simplified mechanical heart-lung machine used in heart surgery.

Keith E. Jensen, M.D., Montgomery, Alabama microbiologist, who has conducted extensive studies of influenza viruses, including the recent Asian strain.

Robert E. L. Nesbitt, Jr., M.D., Albany, New York who has done research in the cause and prevention of infant death in association with the birth process. At 33, Doctor Nesbitt is the youngest chairman of a department of obstetrics and gynecology (Albany Medical College of Union University) in the nation's eighty-three medical schools.

David G. Simons, M.D., physician-scientist at Holloman Air Force Base, New Mexico, who broke records for free-balloon flight, reaching 102,000 feet last August.

Income of Russian Doctors

Senator Thyne (R., Minn.), quoting reports received by him from an engineering professor who visited Russia, says in the Congressional Record that the medical doctor or attorney in that country can expect to earn the equivalent of between \$325 and \$450 per month, while a university professor will be getting \$1,500 to \$2,750 plus such extra benefits as autos at no cost. Experienced engineers are paid about what doctors are, high school teachers \$300 to \$325, common labor about \$125. Ordinary living costs in Russia are reflected in the price of shoes: ordinary, \$25; good quality, \$75 to \$100.

Court Upholds Disciplinary Act

Ralph Neill, executive secretary of the Washington State Medical Society, reports that the Supreme Court of Washington has affirmed the action of the disciplinary board operating under the Washington medical disciplinary act.

The board had suspended the license of a physician who was convicted of violating the internal revenue code of filing a false and fraudulent income tax return. This is believed to be the first case to have come before the Supreme Court of Washington under the medical disciplinary act which was adopted in 1955.

As soon as the opinion of the case becomes available, the A.M.A. law department will abstract it for publication in the *Journal* of the A.M.A.

Record Established in Handicapped Placements in Oklahoma in 1957

There were 11,981 handicapped workers placed on the job in 1957 by the Oklahoma State Employment Service. This was 2,916 above the 1956 placements—monthly increases in 1957 varied from a +47 to a high of +471. Oklahoma was *tenth* in the nation in handicapped placements in January, 1957, but presently ranks *fifth*—New York, Texas, Ohio and Pennsylvania are the only states leading Oklahoma in number of handicapped placed.

Fifth Bahamas Medical Conference To Be Held April 1-12

The Fifth Bahamas Medical Conference will be held at the Dolphin Hotel in Nassau, April 1-12, 1958, according to B. L. Frank, M.D., chairman of the Conference. Several outstanding speakers from various fields of medicine will be featured on the program.

Each physician registering at the conference will receive a certificate of attendance. Registrants and their families will enjoy reduced rates at the Dolphin; \$14 per person per day including breakfast and dinner. All reservations should be made by writing directly to The Manager, The Dolphin Hotel, Nassau, Bahamas.

Coming Meetings

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

Postgraduate Instruction*

PEDIATRIC SURGERY, RADIOLOGY, PATHOLOGY—March 14 and 15

Fourth Annual Combined Symposium

Sponsored by Oklahoma Association of Pathologists,
Oklahoma Association of Radiologists, Oklahoma
Chapter, American College of Surgeons

Guest Lecturers:

Robert E. Gross, M.D., Surgeon, Boston, Mass.
William L. Riger, M.D., Surgeon, Chicago, Ill.
Orvar Swenson, M.D., Surgeon, Boston, Mass.
John W. Hope, M.D., Radiologist, Philadelphia, Pa.
Also a prominent anesthesiologist and pathologist
will be obtained for this program.

BASIC ELECTROCARDIOGRAPHY— March 31-April 5

This course consists of informal lecture presentations which assume no formal acquaintance with the subject. Laboratory exercises are carried out by the participants with individual help from the instructors. All working materials are furnished. Participants are expected to attend all lectures and laboratory periods and remains the entire time scheduled.

TRAUMA—April 11 and 12

Sponsored by the Regional Committee on Trauma of
the American College of Surgeons

OKLAHOMA ASSOCIATION OF HOUSE STAFF PHYSICIANS—May 23

Two guest lecturers and presentation of original papers by members of the various House Staffs will highlight this program. Participating hospitals are: Hillcrest Medical Center, Tulsa; St. John's, Tulsa; McBride, Mercy, St. Anthony, University, Veterans Administration and Wesley, Oklahoma City.

*The above courses will be held at the University of Oklahoma School of Medicine. For further information write to the Office of Postgraduate Instruction, 801 NE 13th St., Oklahoma City, Oklahoma.

Postgraduate Division

UNIVERSITY OF OKLAHOMA MEDICAL CENTER SHORT COURSE SERIES

Mar. 12—Medicine—Pathogenesis and Treatment of Anemia.

April 9—Anesthesiology—Anesthesia for the Part-Time Anesthetist.

May 14—Pediatrics—Pediatric Allergy.

June 11—Surgery—Surgical Diagnosis and Problem Clinic.

The courses are designed so physicians may attend four hours of formal instruction in the above fields while spending only one-half day from their office. This series is approved for credit by the Oklahoma Academy of General Practice.

Time 3:30 to 8:30 p.m. the second Wednesday of each month.

Place: Room 120, Medical School Building.

Registration: \$3.50 per session; \$25 for the entire series includes dinner, Hospital Cafeteria. Mail registration to office of Postgraduate Instruction.

THE HEART PATIENT COURSE

April 21-May 2 Oklahoma Medical Center
Oklahoma City, Oklahoma

The Heart Patient Course, sponsored by the Oklahoma State Heart Association, Oklahoma State Department of Health, University of Oklahoma Medical Center, and the Oklahoma University Extension Division will be held April 21-May 2 at the Medical Center.

Two hours credit from the University of Oklahoma will be given to each enrollee who successfully completes the course which is particularly designed for physicians, nurses, dieticians, and social workers.

Scholarships for the \$25 tuition fee are available to Oklahoma residents. For further information and application blank, write the Oklahoma State Heart Association, 825 Northeast 13th, Oklahoma City 4, Oklahoma.

O.S.M.A. ANNUAL MEETING

May 5, 6, 7

The 52nd Annual Meeting of the O.S.M.A. will be held in the Zebra Room of the Municipal Auditorium, May 5, 6, 7. Eleven nationally known physicians will be guest speakers.

Postgraduate Conference
University of Colorado Medical Center
Denver, Colorado

March 13-15, 1958

EDEMA—ITS PATHOGENESIS AND MANAGEMENT

This three-day postgraduate conference will be devoted to the basic considerations and clinical applications of kidney function, edema, and diuresis. It is designed to present in a comprehensive manner the problems of pathogenesis and management of edema as variously encountered in clinical medicine. Special emphasis will be placed on treatment.

A detailed program and further information may be obtained by writing to: The Office of Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

HILLCREST MEDICAL CENTER
1653 East 12th St., Tulsa, Okla.

Lectures in Basic Science Given by Faculty Members of the University of Oklahoma School of Medicine.

Feb. 25—Common Metabolic Pathways, A. T. Bever, Lecturer.

Mar. 11—Anticoagulants, E. G. Larsen, Lecturer.

Mar. 25—Estrogens and androgens, A. T. Bever, Lecturer.

April 9—Adrenal Steroids; Aldosteronism, R. W. Payne, Lecturer.

April 30—Thyroid: Recent Advances in Diagnosis and Treatment, R. W. Payne, Lecturer.

May 13—Pulmonary Function, M. T. Lategola, Lecturer.

May 27—Basic GI Physiology, J. W. H. Smith, Lecturer.

June 10—Physiological Basis of Liver Function Tests, E. G. Larsen, Lecturer.

June 24—Alimentary Reserve: the malabsorption syndrome, J. W. H. Smith, Lecturer.

Tenth Annual Meeting
SOUTHWESTERN SURGICAL CONGRESS
March 31, April 1-2

Shamrock Hilton Hotel Houston, Texas

Guest speakers for this meeting will be: Ralph F. Bowers, M.D., Memphis, Tennessee; Oscar V. Batson, M.D., ScD. (Hon), Philadelphia, Pennsylvania; George Crile, Jr., M.D., Cleveland, Ohio; and James F. Nolan, M.D., Los Angeles, California.

Further information may be obtained by writing to the Central Office, Southwestern Surgical Congress, 813 Medical Arts Building, Oklahoma City 2, Oklahoma.

Have You Heard?

ALFRED R. SUGG, M.D., Ada, has been appointed a member of the Governor's Committee on Employment of the Handicapped. Object of the committee is to promote increased employment opportunities on a year-round basis for handicapped workers and to promote better understanding of problems of the handicapped.

HASKELL R. ANDERSON, M.D., recently terminated his practice in Watonga. Doctor Anderson announced that he planned to re-enter Public Health Service work some time in the future.

The Journal of the A.M.A. published an article by A. R. STOUGH, M.D., McAlester, in its February 22 issue. Doctor Stough's article reported that no habituation to the tranquilizer meprobamate developed among sixty prison inmates given the drug during a recent study.

CHARLES A. CASHMAN, M.D., who has been in practice in Shidler and Okemah since 1953, moved to Hobart in March where he will be associated with J. WILLIAM FINCH, M.D., at the Hobart Clinic.

PORT JOHNSON, M.D. was guest speaker at the Pittsburg County Medical Society meeting in February. His subject was "Non-operative Management of Low Back Pain."

SOCIAL SECURITY SAYS: "A woman who becomes entitled to benefits based on her own earnings and also the wife's benefits on the earnings of her husband would receive no more than the larger of the two amounts. A child who becomes entitled to child's benefits based on earnings of both his father and mother would not receive both payments."

In Other Words: Double social security taxes paid by one family do not produce benefits for each member paying the taxes. A part of the taxes go to "charity."—Prepared by the A.M.A.

Organization News

"Menopause—Facts and Fables" Topic for Annual Meeting

John E. Hobbs, M.D., will be one of eleven outstanding guest speakers when the Oklahoma State Medical Association convenes at its fifty-second annual meeting in Oklahoma City, May 5. Doctor Hobbs will speak on the subject of "Endometriosis" on May 5 and will appear again on the program of May 6 when he discusses "Menopause—Facts and Fables." An authority in his field, he is an Associate Clinical Professor of Obstetrics and Gynecology at the Washington University School of Medicine, St. Louis, Missouri.



JOHN E. HOBBS, M.D.

Other out of state speakers will be: J. Arnold Bargaen, M.D., gastroenterologist, Mayo Clinic and President of the Minnesota State Medical Association; Charles H. Brown, M.D., gastroenterologist, Cleveland Clinic; John H. Githens, M.D., pediatrician, University of Colorado; Alvin J. Ingram, M.D., orthopedist, Campbell Clinic, Mem-

phis; Kenneth C. Johnston, M.D., endoscopist, Chicago; Charles W. Mayo, M.D., surgeon, Mayo Clinic; Robert D. Moreton, M.D., radiologist, Ft. Worth; Edgar J. Poth, M.D., surgeon, University of Texas; Edwin L. Prien, M.D., urologist, Brookline, Massachusetts; and Louis A. Soloff, M.D., cardiologist, Temple University.

The meeting will be held in the Zebra Room, Municipal Auditorium, May 5, 6, and 7. Preceding the scientific sessions, the House of Delegates will meet on Sunday, May 4, with the first session convening at 10:30 a.m. in the Hall of Mirrors at the Auditorium.

Social events associated with the meeting will be a dinner dance and a Blue Shield-sponsored dinner. The dance, featuring the Charlie Spivak Orchestra, will be held Tuesday evening, May 6 in the Persian Room of the Skirvin Tower Hotel. Although final plans for the Blue Shield affair are not definite, it will be complimentary to all members of the Association and their wives.

Honorary and Life Memberships Now Classed As One

As a reminder to county society secretaries, O.S.M.A. President, John F. Burton, M.D., requested that the *Journal* summarize action taken by the House of Delegates at the 1957 Annual Meeting regarding Honorary and Life Membership classifications.

The Life membership classification was deleted from the By-Laws and Chapter 1, Section 3, Subsection (b) was amended to read as follows:

"Any physician, a member of this Association, who by reason of ill health or age shall retire from the active practice of medicine, or who has been engaged in the active practice of medicine fifty years, or more and whose service to humanity and his profession has been conducted with dignity and honor may be placed on the Honorary-Life Membership roll. Eligibility for such consideration is limited to those physicians who

have been members of this Association not less than five years immediately preceeding application and whose petition for such membership is initiated by a component society of this Association, presented for consideration to the Council, and approved by the Council at a meeting prior to the Annual Session.

"The approval of the House of Delegates, by a majority vote thereof at the annual session, shall be necessary to place such eligible members on the Honorary-Life Membership roll. Such members shall have all the privileges of active membership except holding office, and shall not be required to pay dues or assessments in this Association. Honorary-Life Members shall be considered the same as fully-paid members in computing the membership of the County Societies for the purpose of determining the number of Delegates that the County Societies shall be entitled to send to the House of Delegates as provided by these By-Laws."

These changes were prompted by general confusion between the significance of the two awards and it was felt that the consolidation motion would provide the necessary corrective measure. The appropriate applications were sent to county medical society secretaries. Additional copies may be obtained by writing the state office.

In a separate action, the House of Delegates provided for the recognition of outstanding accomplishments in the field of medicine by adding a subsection (b) to Chapter III, Section 6, the portion of the By-Laws pertaining to Memorials and Resolutions. The new subsection reads as follows:

"Accomplishments in the field of medicine may be recognized by an award of a certificate of accomplishment. Such award shall be initiated by a component society, approved by the Council prior to the Annual Session, and voted by the House of Delegates. To be eligible for such an award, a physician shall have been a member of the Association for not less than five years immediately preceding his recommendation therefor." Forms for the purpose of initiating such an award are being mailed to county society secretaries.

Doctors To Head West for A.M.A. Annual June Meeting

Between 12,000 and 15,000 physicians will journey westward in June in search of something far more valuable than gold. They'll be on a quest for the latest information on new medical techniques and discoveries at the American Medical Association's 107th Annual Meeting in San Francisco. The five days of June 23-27 will be filled with bright nuggets—including scientific exhibits, lectures, motion pictures, panel discussions, televised surgical procedures and commercial exhibits. Convenient center for the Scientific and Technical Exhibits, films, color TV and lectures will be the Civic Auditorium, the adjacent new Plaza Exhibit Hall and other surrounding buildings. Headquarters for the House of Delegates sessions will be the Sheraton-Palace Hotel.

Plans for an outstanding scientific lecture program are being completed by the Council on Scientific Assembly. Opening the general scientific program Monday afternoon, June 23, will be a symposium on the care of the severely injured patient. Tuesday morning a general meeting will feature another symposium on hazards associated with therapeutic agents. Formal scientific section meetings will run from Tuesday afternoon through Friday morning.

Special panel discussions and demonstrations are being planned throughout the meeting, including: perinatal problems; methods of resuscitation of infants; nutrition; physical examination of physicians, using electrocardiograms and chest x-rays; fresh tissue pathology, and treatment of fractures. The Section on Miscellaneous Topics also is planning sessions on allergy, prevention of traffic accidents, prevention of injury in sports, and medical professional liability. Other features will be a color television program of live operations and demonstrations from San Francisco Hospital and a varied motion picture program.

Registration officially opens at the new Plaza Exhibit Hall Monday, June 23, at 8:30 a.m. and closes Friday noon. Advance registrations will be accepted Sunday, June 22, from 12 noon to 4:00 p.m. The Scientific

and Technical Exhibits will be open to A.M.A. physician-members *only* on Tuesday and Wednesday mornings.

Two high school winners of A.M.A. scientific awards at the National Science Fair again will display their prize exhibits. In addition, the top winners of the intern-resident and medical student exhibit classifications at the Student A.M.A. convention this spring will be invited for the first time to exhibit at an A.M.A. meeting.

Plan now to attend this worthwhile medical meeting. Watch for further details in *The Journal of the A.M.A.*

American Academy of General Practice Meets in Tulsa

Over 200 physicians registered for the tenth annual meeting of the Oklahoma Chapter of the American Academy of General Practice which was held in Tulsa, February 3-4.

Guest speakers for the two-day meeting were: Justin J. Cordonnier, M.D., St. Louis, Missouri; Michael E. DeBakey, M.D., Houston, Texas; E. Richard Harrell, Jr., M.D., Ann Arbor, Michigan; Paul C. Laybourne, M.D., Kansas City, Kansas; Benjamin H. Robbins, M.D., Nashville, Tennessee, and Richard H. Shepard, M.D., Baltimore, Maryland.

A banquet was held on Monday evening in the Topaz Room, Tulsa Hotel. Entertainment was furnished by the "Kenneth Anquo Indian Troupe" and "The Tulsans," a male chorus, directed by Ronald Shirey. Guest speaker for the evening was Malcom E. Phelps, M.D., El Reno, President of the American Academy of General Practice.

Newly elected officers of the group are: President, Charles E. Wilbanks, M.D., Tulsa; President-Elect, Roger Reid, M.D., Ardmore; Vice-President, Robert T. Sturm, M.D., Oklahoma City; Secretary-Treasurer, V. M. Rutherford, M.D., Midwest City; Delegates, Marshall O. Hart, M.D., Tulsa and M. B. Glismann, M.D., Oklahoma City; and Alternates, Edward T. Cook, M.D., Anadarko and Mark D. Holcomb, M.D., Enid.

Physicians Reminded Of Birth, Death Laws

The Division of Statistics of the Oklahoma State Department of Health has asked that members of the association be reminded of certain requirements outlined in the Oklahoma Statutes pertaining to the reporting of births and deaths.

REGISTRATION OF BIRTHS

Oklahoma Statute 63 O. S. 1951 § 560.3

A. Within the time prescribed by the commissioner a certificate of every birth shall be filed with the registrar of the district in which the birth occurred, by the physician, midwife, or other legally authorized person in attendance at the birth; or if not so attended, by one of the parents.

Resolution adopted in July 1948 pursuant to the above statute.

(1) Birth registration. Every live birth which shall occur in this state shall be filed with the local registrar of the district in which the birth occurred within 10 days after the date of birth.

REGISTRATION OF DEATHS AND STILLBIRTHS

Oklahoma Statute 63 O. S. 1951 § 560.4

A certificate of every death or stillbirth shall be filed with the local registrar of the district in which the death or stillbirth occurred within 3 days after the occurrence is known; or if the place of death or stillbirth is not known then with the local registrar of the district in which the body is found within 24 hours thereafter. In every instance a certificate shall be filed prior to interment or other disposition of the body.

B. (2) In preparing a certificate of death or stillbirth the person in charge of interment shall obtain and enter on the certificate the personal data required by the commissioner from the persons best qualified to supply them. He shall present the certificate of

death or stillbirth to the physician last in attendance upon the deceased.

C. If the cause of death cannot be determined within three days, the certification of its cause may be filed after the prescribed period, but the attending physician shall give the local registrar of the district in which death occurred, written notice of the reason for the delay, in order that a permit for the disposition of the body may be issued.

OFFENSES

Oklahoma Statute 63 O. S. 1951 § 560.13

C. Except where a different penalty is provided in this section, any person who violates any of the provisions of this Act or neglects or refuses to perform any of the duties imposed upon him by this Act, shall be fined not more than One Hundred Dollars (\$100.00).

OSMA Representatives Attend AMA Meeting in Dallas

Representatives of the Oklahoma State Medical Association were present at a meeting of the A.M.A.'s Committee on Prepayment Medical and Hospital Service which was held February 28 in the Adolphus Hotel, Dallas.

President John F. Burton, M.D., President-Elect E. C. Mohler, M.D., Past-President H. M. McClure, M.D., and Executive Secretary Don Blair were in attendance. Doctor Mohler appeared on a panel concerned with "problem areas in voluntary health insurance."

In addition to Oklahoma, representatives were present from Alabama, Arkansas, Kansas, Louisiana, Mississippi, New Mexico, Texas, and the Dallas County Medical Society. The regional meeting with the Committee is under the auspices of the A.M.A.'s Council on Medical Service, of which the Committee is a sub-division.

Other discussions were centered around the profession's role in voluntary health insurance, degree of control to be exercised, summary of the background and growth of such plans, and future attitudes toward such programs.

Upper Respiratory Disease Rate Drops

Following several weeks of slight increases, the rate for upper respiratory disease (resulting in a day or more in bed) is showing a decrease, according to the National Health Survey. Revised figures show 3,683,000 new cases for the week ending January 11, but a drop to 2,274,000 for the next week. Similarly, the average number of persons in bed because of these diseases dropped by 20 per cent, to 1,644,000. Both estimates for new cases and average daily number of bed cases are now at the lowest levels since September, according to the Survey. Survey statistics lag three or four weeks behind because they are compiled from door-to-door questioning of a cross-section of the population.

Revised Constitution Drafted

The Constitution and By-Laws Committee of the Oklahoma State Medical Association, at the direction of the Council, has prepared a revised constitution and by-laws which will be presented to the House of Delegates at the annual meeting in Oklahoma City on May 4.

Members of the committee are Chester McHenry, M.D. (Chairman), William T. Gill, M.D. and Clinton Gallaher, M.D.

Copies of the proposed changes to the by-laws will be mailed to county society presidents and secretaries as well as to all delegates to the O.S.M.A., prior to the annual meeting. In accordance with the present constitution, the amended constitution is printed below for the information of all members of the association.

CONSTITUTION

ARTICLE I.

The name of this organization is the OKLAHOMA STATE MEDICAL ASSOCIATION, INCORPORATED.

ARTICLE II.

Purpose of the Association

This Association is formed to promote the science and art of medicine.

ARTICLE III.

Component Societies

The Association shall charter component county or district societies.

ARTICLE IV.

Membership

The members of the component societies shall be the members of the Association. Membership in the Association is a privilege and not a right.

ARTICLE V.

House of Delegates

Section 1. The House of Delegates shall be the legislative body of the Association. It shall be composed of (1) Delegates elected by the component societies, and (2) the general officers of the Association.

Section 2. It shall meet at least once at each annual meeting. A special meeting may be called by the president, the council, or by petition to the speaker from not less than thirty delegates. Only such business as is specified in the call shall be transacted at a special meeting.

Section 3. It shall apportion the State into suitable councilor districts.

ARTICLE VI.

The Council

Section 1. The Council shall consist of two councilors from each councilor district, and the other general officers of the Association.

Section 2. The Council shall be the executive and the judicial branch of the Association.

Section 3. The Council shall meet at least once during the annual meeting, and on call by the president, or by petition to the president from one-third or more of its members.

ARTICLE VII.

Meetings

The Association shall hold an annual meeting at a place designated by the House of Delegates. For good and sufficient reasons the Annual Meeting place may be changed by a three-fourths vote of the Council.

ARTICLE VIII.

General Officers

Section 1. The general officers of the Association shall be the President, President-Elect, Vice-President, Secretary-Treasurer, Speaker and Vice-Speaker of the House of Delegates, the Councilors, the Delegates and Alternate Delegates to the American Medical Association, the Editor of the Journal, and the most recent two past presidents of the Association.

Section 2. All general officers shall be elected by the House of Delegates at its Annual Meeting, except the Editor of the Journal, and may be removed from office for cause.

Section 3. The President-Elect and the Vice-President shall be elected for a term of one year. The Secretary-Treasurer, Speaker and Vice-Speaker of the House of Delegates shall be elected for a term of two years. The councilors shall be elected for a term of three years, the terms being so arranged that approximately one-third shall be elected each year. At the expiration of his term, the President-Elect shall become President for a term of one year.

Section 4. The general officers, except Delegates and Alternate to the American Medical Association who will not assume office until January 1, shall assume the duties of their offices at the close of the Annual Meeting at which they are elected, and shall serve until their successors have been elected and installed.

Section 5. Vacancies in any general office shall be filled by appointment by the President, with the approval of the Council, effective until the next annual meeting, at which time the House of Delegates shall elect a successor to complete the unexpired term, except in the case of the President or Speaker of the House of Delegates, or Delegates to the American Medical Association, where the Vice-President or Vice-Speaker shall automatically fill the vacancy.

ARTICLE IX.

Finances

The House of Delegates shall levy such dues and assessments as it considers proper for the conduct of the business of the Association. The council, at least annually, shall submit a budget for future operations of the Association to the House of Delegates, and the House of Delegates shall make such appropriation of funds as it considers proper.

ARTICLE X.

Referendum

The House of Delegates may submit any question to a vote of the members of the Association, provided that two-thirds of the Delegates present at the meeting vote in favor of such referendum. The House of Delegates shall designate a committee to conduct the referendum and publish the result.

ARTICLE XI.

Seal

The House of Delegates shall adopt an official seal for the Association.

ARTICLE XII.

Ethics

The principles of medical ethics of the American Medical Association currently in force shall be those of this Association, and shall govern the conduct of its members.

ARTICLE XIII.

Amendments

The House of Delegates may amend this constitution or any part thereof by the affirmative vote of two-thirds of the Delegates present at any annual meeting, provided that notice of the proposed amendment shall have been given to each component society at least 60 days before such meeting. No amendment shall become effective until the close of the annual meeting at which it is adopted.

ARTICLE XIV.

This Constitution supersedes and repeals all previous constitutions. Any By-law, Resolution, or enactment in conflict herewith is declared to be of no effect.

A.M.A. To Publish Tabloid Paper

The Board of Trustees, meeting in Chicago recently, authorized publication of a new, 16-page tabloid newspaper called "*The A.M.A. News*." The newspaper which is in its formative and planning stages is expected to be distributed every two weeks to approximately 200,000 physicians.

In this way, we will be able to bring to the attention of our members the multitude of projects and activities carried on by their association, as well as all non-scientific news of interest to the profession. Publishing a newspaper for members was selected as a means of improving communications between the association and its members.

The "*A.M.A. News*" project was discussed with many people, inside and outside of medicine. In nearly every instance, it was felt that such a publication, built on a news format, was needed.

Physicians will be kept informed of what is going on in medicine in all 48 states through "*The A.M.A. News*."

The publication will carry advertising,

M.D.'s, Lawyers Meet in Ardmore

The regular monthly meeting of the Carter-Love-Marshall Counties Medical Society was held as a joint meeting with members of the Carter County Bar Association.

The two groups assembled at the Tom Cooper Dairy Store for a dinner which was presided over by Tom Sparks II, M.D., President of the Medical Society. He was assisted by Frank Thomas, President of the Bar Association.

Following dinner, a general round table discussion was developed on Medico-legal problems, and methods of cooperation, in which almost everyone present participated. The members of each group felt they had greatly benefitted by the meeting and it was unanimously agreed to make it an annual affair to be held each February.

and the editorial staff, yet to be selected, will work at the association's Chicago headquarters.

The first issue is expected to be ready for distribution at the A.M.A. annual convention in San Francisco, June 23-27.

What's Your Hobby, Doctor?

The DOCTOR'S HOBBY SHOW has become one of the outstanding attractions at the OSMA ANNUAL MEETING. A project of the Woman's Auxiliary, the show offers physicians an excellent opportunity to display the products of their leisure time. If you have a hobby, don't keep it a secret . . . Show your colleagues what you can do . . . APPLY NOW!

**Doctor's Hobby Show
O.S.M.A. Annual Meeting
Municipal Auditorium
Oklahoma City
MAY 5 - 6 - 7 - , 1958**

Application For Hobby Show Space

52nd ANNUAL MEETING

OKLAHOMA STATE MEDICAL ASSOCIATION

DESCRIBE EXHIBIT, including information as to size, shape and value (insurance is provided):

IMPORTANT: Deliver Exhibit to Zebra Room, Municipal Auditorium, by noon, May 4. Your Exhibit will be personally attended and insured at all times. It must be taken down by noon, May 7, when management responsibility ends.

MAIL THIS FORM TO:

**Mrs. Wm. R. R. Loney, Chairman,
Doctor's Hobby Show
2440 East 26th Place
Tulsa 14, Oklahoma**

APPLICATION FOR SPACE

SCIENTIFIC AND EDUCATIONAL EXHIBIT SECTION

52nd ANNUAL MEETING ★ OKLAHOMA STATE MEDICAL ASSOCIATION
MUNICIPAL AUDITORIUM ★ OKLAHOMA CITY ★ MAY 5, 6, 7, 1958
(Please type or print)

Name of organization or individual requesting space: _____

Please describe your exhibit (75 words maximum - to be used in official program:)

Amount of space required (indicate width in multiples of eight feet): _____ feet.
(All exhibit spaces will be 6 feet deep.)

If you have ever exhibited at an Annual Meeting, give most recent date: _____

Date of application: _____

Applications should be mailed to the Scientific and Educational Exhibits Committee, Oklahoma State Medical Association, Box 9696 Shartel Station, Oklahoma City.

Closing date for filing applications: March 15, 1958. Space is limited and not all applications can be accepted. There will be no charge for space, but each exhibitor is responsible for installation of own exhibit. The Oklahoma State Medical Association assumes no liability for the safety of exhibits. Exhibits will be installed on Sunday, May 4, 1958 and must be removed between 1:00 p.m. and 5:00 p.m. on Wednesday, May 7, 1958.

Doctor Kelso Speaks in Far East

Joseph W. Kelso, M.D., Oklahoma City is now on an extensive tour of the Far East where he will deliver scientific papers in several foreign countries. The initial invitation to speak at the Kumamoto Medical School in Japan prompted further speaking dates and he is now scheduled for three talks in the Philippine Islands and an additional two talks in Japan.

On March 17, he will speak to the Philippine Surgical Society in Manila. He will also speak at Olongapo-Zamboles on March 18 and the following day at Baguio, the summer capitol of the Philippines.

After leaving the Philippines, he and Mrs. Kelso will journey to Singapore, Bangkok, Saigon, and Hong Kong before filling his speaking engagements in Japan.

He will be one of the two foreign speakers at the 19th Annual Meeting of the Japanese Obstetrical and Gynecological Society when

they meet at Fukuoka, Japan. In addition to speaking on the "Surgical Treatment of Carcinoma of the Cervix," he will show his own movies on "Vaginal Hysterectomy" and "Radical Vulvaectomy and Bilateral Gland Resection."

At Kumamoto, he will talk on the "Management of Gynecological Urological Accidents" and the "Surgical Management of Carcinoma of the Cervix."

Following the Kumamoto presentations, he will travel to Tokyo where he will give the same addresses plus a paper entitled, "The Infertile Couple."

Upon return to the United States, he will speak before the American College of Obstetricians and Gynecologists on April 23 in Los Angeles. Enroute to Oklahoma City, he will stop in Pueblo, Colorado to deliver a paper.

AN INVITATION TO EXHIBIT OSMA ANNUAL MEETING

Do you have an idea which you would like to present to other physicians in Oklahoma? An unusual case? A series of cases? A new device or technique? An organization problem or plan of action? A piece of experimental work?

If so, consider working it up as a SCIENTIFIC EXHIBIT to be shown at the annual meeting of the Oklahoma State Medical Association in May, 1958. Applications should be submitted on form reproduced on the opposite page.

Start now collecting your material and planning your exhibit. Since space is limited, you are encouraged to submit your application early. Your exhibit need not be large. It should be stimulating. Subjects which have special visual interest are particularly suitable.

MAY 5, 6, 7

ZEBRA ROOM

MUNICIPAL AUDITORIUM

OKLAHOMA CITY

Deaths

STEPHEN W. REYNOLDS, M.D.

1891-1958

Stephen W. Reynolds, M.D., Drumright physician, died in his office February 3, 1958. Doctor Reynolds was born in St. Joseph, Missouri in 1891.

After graduating from the University of Oklahoma School of Medicine in 1914, he began his practice in Drumright.

Doctor Reynolds was a member of the Creek County Medical Society, the Oklahoma State Medical Association, and the American Medical Association.

BERTHE MARGOLIN LEE, M.D.

1894-1958

Berthe Margolin Lee, M.D., Tulsa anesthesiologist, died February 1, 1958 from injuries suffered when she was knocked down by her rolling automobile. Doctor Lee was the wife of J. K. Lee, M.D., also a Tulsa physician.

A native of Riga, Latvia, Doctor Lee, who was known professionally as Doctor Berthe Margolin, came to the United States in 1915. She graduated from the Fort Worth School of Medicine in 1917 and moved to Tulsa in 1918.

Doctor Lee was a member of the Tulsa County Medical Society, the Oklahoma State Medical Association, and the American Medical Association.

UDONNA CLIFTON BOON, M.D.

1874-1958

Udonna Clifton Boon, M.D., 83-year-old pioneer Chickasha physician died in Round Lake, Illinois, February 8, 1958.

Doctor Boon was born in 1874 in Whitesburg, Georgia. He graduated from Tulane University School of Medicine in 1898.

In recognition of his fifty years of service to the medical profession, Doctor Boon was awarded a fifty-year pin by the Oklahoma State Medical Association.

Doctor Boon retired two years ago to make his home in Round Lake. He was a member of the Oklahoma State Medical Association and the American Medical Association.

BLAIR POINTS, M.D.

1885-1958

Blair Points, M.D., 73, who practiced medicine in Luther for 20 years, died February 10, 1958 in Oklahoma City. Doctor Points was the father of Thomas C. Points, M.D., Oklahoma City physician.

Doctor Points was a member of the first class to be graduated from the University of Oklahoma School of Medicine in 1911. He established the first full time county health unit in Oklahoma in Ottawa county in 1918.

Doctor Points was a member of the American Medical Association.

SUMMARY AND REFERENCES FOR 'THE EFFECT OF DIGOXIN ON CARDIAC OUTPUT AND HEMODYNAMICS IN EXPERIMENTAL SUPRA-VALVULAR MITRAL STENOSIS.*

Summary and Conclusions

1. Dogs in congestive heart failure from experimental mitral stenosis generally displayed a fall in cardiac output with a fall in pulmonary artery pressure.

2. Dogs, following phlebotomy, showed an essentially similar change.

3. Diuresis and naturessis was frequently observed with a fall in cardiac output and no appreciable change in right atrial pressure.

REFERENCES

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2. Jaques, W. E. and Hyman, A. L. Experimental supra-valvular mitral stenosis in the dog. *A.M.A. Arch. Path.* 64: 67, 1957.
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7. Hyman, A. L., Jaques, W. E., and Hyman, E. J. Observation of the direct effect of digoxin on renal excretion of sodium and water. *Am. Heart J.* 52: 592, 1956.

*This investigation was supported by Research Grant H-1838 and H-3235S from the National Heart Institute of the National Institutes of Health, Public Health Service.

**—Nembutal—Abbott Laboratories.

*—Digoxin—Burroughs Wellcome & Co.

(801 Northeast 13th Street, Oklahoma City, Oklahoma)

Continued from Page 117

SUMMARY AND REFERENCES FOR 'THE CONTROL OF A POST-NATAL EPIDEMIC OF BREAST ABSCESES IN A GENERAL HOSPITAL.'

Summary

An epidemic of breast infections is presented. The methods of studying and combatting this epidemic are described, and the

results are presented. Suggestions are made for the prevention and handling of similar situations.

REFERENCES

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(St. Johns Hospital, Tulsa, Oklahoma)

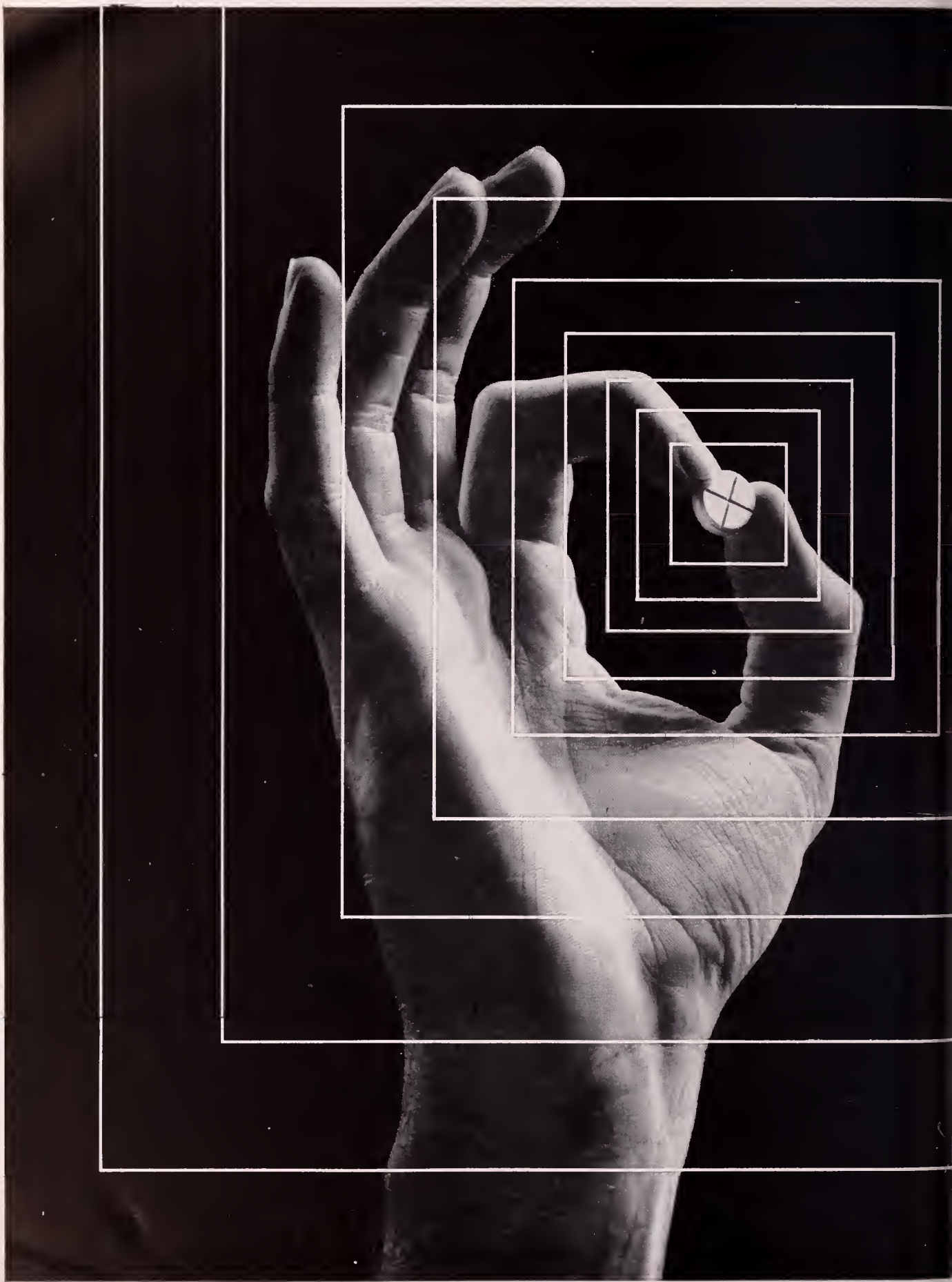
Continued from Page 119

REFERENCES FOR 'STOP RHEUMATIC FEVER.'

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(800 N. E. 13, Oklahoma City, Oklahoma)



*a new era
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ONLY ONE TABLET A DAY

KYNEX

SULFAMETHOXYPYRIDAZINE (3-SULFANILAMIDO-6-METHOXYPYRIDAZINE) **LEDERLE**

New authoritative studies prove that KYNEX dosage can be reduced even further than that recommended earlier.¹ Now, clinical evidence has established that a single (0.5 Gm.) tablet maintains therapeutic blood levels extending beyond 24 hours. Still more proof that KYNEX stands alone in sulfa performance—

- Lowest Oral Dose In Sulfa History—0.5 Gm. (1 tablet) daily in the usual patient for maintenance of therapeutic blood levels
- Higher Solubility—effective blood concentrations within an hour or two
- Effective Antibacterial Range—exceptional effectiveness in urinary tract infections
- Convenience—the low dose of 0.5 Gm. (1 tablet) per day offers optimum convenience and acceptance to patients

NEW DOSAGE. The recommended adult dose is 1 Gm. (2 tablets or 4 teaspoonfuls of syrup) the first day, followed by 0.5 Gm. (1 tablet or 2 teaspoonfuls of syrup) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive ¼ of the adult dosage. It is recommended that these dosages not be exceeded.

TABLETS: Each tablet contains 0.5 Gm. (7½ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

SYRUP: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

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25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association March, 1933.

A METHOD OF DETERMINING PERCENTAGE OF PARTIAL DISABILITY FOR THE OKLAHOMA STATE INDUSTRIAL COURT

Earl D. McBride, M.D., F.A.C.S.
Associate Professor Orthopedic Surgery
University of Oklahoma
Oklahoma City

"The physician and the industrial court: When an injured employee has sustained a disability of a permanent nature, the industrial courts expect the physician to determine the extent of disability. They depend on him to express in percentage the permanent or partial permanent loss, *i.e.*, he is to determine the functional ability less a disability.

"This involves the physician in a matter that is without the usual sphere of his medical training. The average physician is not experienced in industrial court activities and the problem of interpreting loss of function in mathematical or monetary values is entirely foreign to his customary reasoning of prognostic determination. Since he probably has never done hard manual labor it is difficult for him to determine the ability of an injured laborer to perform his duties. The average physician is not accustomed to being definite. In his practice he deals constantly with uncertainties. He is well acquainted with, and often makes indefinite patronizing expressions, optimistic and sympathetic for the psychological benefit of the patient. When confronted, therefore, with a problem which has on the one side a claimant who expects monetary remuneration for damages to his body, and on the other side by an employer who is forced by law to pay for such damages, the medical opinion immediately becomes valuable and all statements made must be such as to avoid prejudice and error.

"It behooves the physician to be strictly impartial. However, testimony and opinions are rendered in every industrial court which show a wide variation in mathematical evaluations of percentages of partial disability. This cannot be remedied unless some definite system of reasoning can be evolved. It is the writer's contention that disability should be based on functional loss and not upon anatomical and physiological imperfections. The disability should be evaluated upon

what the man cannot do because of anatomical and physiological imperfections, not upon the extent of their existence. For instance, pain, atrophy or shortening of an extremity, measure the disability only to the extent that they interfere with such functions as quickness of action, coordination of movements, strength or security. Thus, we would have to consider two elements in reasoning a determination of evaluation. First, the contributing factors of anatomical and physiological damage. Second, the functional loss resulting from these imperfections.

"Contributing Factors: The contributing factors of a partial disability claim, *i.e.*, the anatomical and physiological deficiencies, for which an accident of industry is responsible are revealed by physical examination. For instance, a fractured bone that has healed in angulation necessarily disturbs mechanical perfection of the part. It may or may not interfere with use of the part in labor. If in the examiner's opinion it does interfere with function, the extent of this loss may be expressed in terms of percentage representing a limitation of the normal service of the part of the individual, and therefore, a diminished earning capacity. . . .

"Functional Factors: Functional factors pertaining to the ability of an individual to use his limbs and body in ordinary manual labor at normal wage earning capacity are as follows:

1. Quickness of action.
2. Coordination of movements.
3. Strength
4. Security.
5. Endurance.
6. Safety.
7. Ability to secure employment. . . .

"Rating of Functional Factors: It is reasonable that if each of these functional factors enter into the disability of the individual, then each should bear its relation to the evaluated loss. No single factor alone is responsible for total disability. For instance, if the disabled member of the body is 100 per cent weak, quickness of action, coordination of movements, security and endurance are also affected, but not necessarily to the amount of 100 per cent in respect to performing ordinary manual labor. It is necessary, therefore, that each of these factors should be given an evaluation according to its relative importance to the working capacity of the individual. The slowing up of activity and awkwardness are not important to the earning capacity as weakness in lifting power or the insecurity of holding, pulling or pushing power. The factors of diminished endurance and endangering safety are not to be rated quite as high as the damaging effect of lessening the individual's chance of securing future employment. The relative value of any of these factors will vary in many ways, in various cases. If each factor is given a percentage

value and the sum of all factors is 100, then even though relative importance may vary, the percentage of loss of the part as a whole will be equitably estimated. There may be a difference of opinion on the individual functional values, but if each is a portion of 100%, the resulting permanent loss of each will total a proportional percentage. . . .

Conclusions

"The writer has been stimulated to study out some definite ideals on this subject because it seems that dealings with industrial claims have come to be a part of the physician's duties and that the profession should take some steps to place it on just as honorable and scientific basis as any other part of medical practice.

It is hoped that the suggestions here developed will inspire others to continue the study. . . ."

Editorial Notes—Personal and General

" . . . KAY COUNTY MEDICAL SOCIETY met in January and elected the following officers for 1933: President, Dr. Merle C. Clift, Blackwell; Vice President, Dr. W. S. White, Blackwell; Secretary-Treasurer, Dr. L. H. Becker, Blackwell. . . .

"GRADY COUNTY MEDICAL SOCIETY elected the following officers at their January meeting to serve for 1933: President, Dr. J. F. Renegar, Tuttle; First Vice President, Dr. C. P. Mitchell, Chickasha; Second Vice President, Mr. C. P. Cox, Ninnekah; Secretary-Treasurer, Dr. L. E. Woods, Chickasha; Delegate, Dr. Roy E. Emanuel, Chickasha; Censor, Dr. D. S. Downey, Chickasha. . . ."

"DR. CURT von WEDEL, Oklahoma City, announces the establishment of a department of Internal Medicine and Diagnosis, under the supervision of Dr. Harry A. Daniels, formerly of Rochester, Minnesota. . . .

"JACKSON COUNTY MEDICAL SOCIETY elected the following officers to serve for 1933: Doctors, J. S. Stultz, Altus, president; C. G. Spears, Altus, vice president; E. W. Mabry, Altus, re-elected secretary; E. S. Crowe, Olustee, delegate; R. F. Brown, Altus, alternate. . . .

"COMANCHE COUNTY MEDICAL SOCIETY elected the following officers to serve for 1933: President, Dr. Thomas R. Lutner, Lawton; Vice President, Dr. L. W. Ferguson, Lawton; Secretary-Treasurer, Dr. E. Brent Mitchell, Lawton; Censors, Doctors J. W. Malcolm, H. A. Angus and P. G. Dunlap, all of Lawton. . . .

"BECKHAM COUNTY MEDICAL SOCIETY held a meeting at the Tisdal Hospital, Elk City, and reorganized their County Medical Society, in December. The

Book Review

Healthful School Living. A report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association. Cloth binding, \$5.00. Copyright, 1957.

Healthful School Living completes a trilogy of publications relating to the school health program. The other two are *Health Education* (1924) and *School Health Services* (1953). The three works compliment one another in supplying teachers, school administrators, physicians, dentists, nurses, and others concerned with the health of the school child, with a synthesis of medical and educational viewpoints.

This particular volume emphasizes solutions to health problems affecting pupils as they live and learn at school. Useful information is gathered here on such matters as school housekeeping, the prevention of accidents, water supply and waste disposal, heating, ventilating, and lighting. Chapters are included on the health aspects of the school lunch, school building construction, and physical education. There are significant suggestions for teachers and administrators on health problems involved in the organization of the school day, the health implications of various classroom procedures, and the special needs of rural schools.

Particular emphasis is placed on the administration in a school to assure healthful school living with space devoted to general administrative principles, school health policies, organization of the school health program, the school health budget, and health personnel and their responsibilities.

following officers were elected for 1933: President, Dr. V. C. Tisdal, Elk City; Vice President, Dr. Phil DeVaney, Sayre; Secretary-Treasurer, Dr. C. F. Jones, Erick; Censors, Drs. H. K. Speed, Sayre; O. C. Standifer, Elk City, and R. C. McGregory, Erick. . . ."

"DRS. W. P. AND E. HALSELL FITE, Muskogee, attended the meeting of the American College of Surgeons held in St. Louis, in October."

PHYSICIAN PLACEMENT

General Practice

Jack L. Coats, M.D., 1414-A East 17th Place, Tulsa, Oklahoma, age 29, married, veteran, University of Oklahoma School of medicine 1957, will be available July 1, 1958.

Sam Davis, M.D., 1605 N.E. 38, Oklahoma City, age 33, married, graduated from University of Oklahoma School of Medicine, 1956, veteran, will be available July 1, 1958.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

Charles Edward Selah, M.D., Huey P. Long Charity Hospital, Pineville, Louisiana, age 31, married, will complete board requirements in June, 1958, veteran, graduated from Tulane 1951, will be available July 1, 1958.

Ralph L. Hopp, M.D., 338 E. Kingsley, Ann Arbor, Michigan. Married, veteran, Board Certificate held in General Surgery. Graduated Indiana University, 1950, will be available July 1, 1958.

Internal Medicine

Bartis M. Kent, M.D., 255 Koser, Iowa City, Iowa, age 32, married, Baylor, 1948. Three year residency at Baylor, veteran, available July, 1958.

Lacum Tenens

Jack David Shirley, M.D., 430 Bellevue, Lafayette, Louisiana, age 27, married, will be inducted into U. S. Navy, October 6, 1958, graduated from University of Oklahoma in 1956, would like position for three months doing general practice. iWill be available July 1, 1958.

Neurosurgery

Bahif S. Salibi, M.D. (Currently Captain, MC U. S. Army) 121 Evac. Hosp., APO 971, San Francisco, California, age 35, married, Harvard, 1950, Board qualified in Neurosurgery, except for the two years of private practice required by the Boards, available October, 1958.

Obstetrics & Gynecology

Herbert Claiborne Jones, M.D., Jr., Box 166, University Hospital Charlottesville, Virginia, age 30, married, University of Virginia 1951, finishing board qualifications, will be available Spring, 1958.

Orthopedic Surgery

H. N. Hamilton, M.D., 13 Evergreen Road, Little Rock, Arkansas, age 36, married, veteran. Johns

CLASSIFIED ADS

5-TON Westinghouse Air Conditioner property of Association, excellent condition, \$350.00

WANT TO BUY your surplus equipment. We buy, sell, trade medical apparatus. Largest stock of good used medical devices in the Southwest. Expert repairs on X-ray and electromedical machines. Tell us about your equipment problems. TEX-RAY CO., opposite St. Paul's Hospital at 3305 Bryan Street, Dallas.

PHYSICIAN'S OFFICE EQUIPMENT: Medical Arts Building, Oklahoma City, available in nice office; two examining tables and stools; desk; reception room furniture; filing equipment; bookcase; refrigerator; scales; sterilizer; many small items; \$500; Write Key F, c/o THE JOURNAL, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

CLINIC LOANS: If you are planning to build a clinic, and need to secure financing, call Pat Allen, WI 2-2402 or write 1201 Classen Dr., Oklahoma City.

PHYSICIAN WANTED, State Veterans Hospital, Sulphur, approx. \$900 per month plus other benefits. Contact C. E. Bates, M.D., Box 200, Sulphur, phone 851.

FOR SALE: Office equipment consisting of reception, consulting, examining, supply room. This office is located in northeast Oklahoma and the rent is fifty dollars per month if you should desire to use the present building. There is an opening here for another young doctor and this office could be ready for business immediately. The office equipment price is \$2,000. If interested contact JOURNAL.

FOR SALE: Young Cystoscopic table, 100 M A rotating anode tube, controls, transformer, cassettes (complete unit) 3 years old—\$2,500.00. Springer Clinic, Tulsa, Oklahoma, LU 7-6621.

WANTED PHYSICIAN: recent graduate as assistant in industrial surgery. Beginning July 1, 1958. Apply Glass-Nelson Clinic, Tulsa, Oklahoma, P. O. Box 3718.

Hopkins, 1945, finishing Orthopedic Residency July 1958 and will be available at that time.

Thoracic and Cardiovascular Surgery

Wayne E. Hird, M.D., McGuire VA Hospital, Richmond 19, Virginia, age 31, married, Korean veteran, University of Kansas 1950, Board qualified in General Surgery, Thoracic and Cardiovascular exams will be completed by next July. Will be available July, 1958.

Editorials

Annual Meeting

The Annual Meeting has a deeper significance than learning a few things which will be of practical use. It is the official meeting of the members of the Association for the business of the Association, but it is also the time for an exchange of ideas on all subjects related to the physician's work.

Twenty years ago the affairs of the Association outgrew a simple method of operation with a part-time physician-secretary. Mr. R. H. Graham became executive secretary and has built up a fine full-time central organization which is the glue that holds us in one piece and sends out tentacles to maintain liaison with all elements in our society which relate to medicine.

This development has been necessary and has been very well done; but it does not absolve us from responsibility as members. We are the people who are in the field—we see the effects of drouth, of flood, of rust, of weevils, of anthrax, of proration, of tornadoes, and hail and dust and wind. We know how well our old people and dependent children fair when sick. We know how adequate our hospital facilities are. We know how complete our public health and school health coverage is. We see the effects of a psychotic patient's premature release from our institutions. It is our job to treat people who come away from church suppers with food poisoning, and women who have infections after abortions. We know what public employees in our communities are sucking too hard on the public teat.

If we assume that the physician's primary concern is the welfare of the people in his community, the decisions to implement the Association's influence in that direction cannot be left entirely to a central office however capable it may be. We have a solid background of experience in every corner of the state. The annual meeting is the time and place to put it to work. To caucus at home is not enough nor is it

Faculty House

The Faculty House is not so much a place for gatherings and meals as it is a symbol of an effort to make knowledgeable and actual the continuity that exists between all disciplines of medicine, between the School of Medicine and its alumni, and between the University Hospitals' post-doctoral training program and its alumni.

This is directed to the alumni, particularly those who live outside the immediate vicinity of the School of Medicine. When you left Oklahoma City to start in practice you were grateful to the University and to the Hospitals, you knew many people, and many of the faculty knew you by name. As time goes by you know fewer people; many of your friends on the faculty have retired; no one any longer knows you by name; you feel that you are a stranger and that the school has grown cold and impersonal. Perhaps you think it no longer capable of teaching young people to look after the sick. You may have even become resentful and at times make unkind remarks thoughtlessly.

The school hasn't changed except to become better. The faculty hasn't changed in desire and ability to teach. You have just lost touch. A membership in the Faculty House is an opportunity for you to renew your relationship with old friends and with your old teachers—to learn to know the new faculty members, to participate and add personally to the welfare of the medical center and to again feel at home on the Medical School campus—all this in an atmosphere unbelievably stimulating and pleasant.

While this is addressed to alumni and faculty of the Medical Center, any member of the Association who is interested in the School and its faculty is invited to apply for membership. Ask about it when you come to the Annual Meeting.

enough to be against something. If a problem exists its solution must be sought.

PRINCIPLES of MEDICAL ETHICS

PREAMBLE

These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws but standards by which a physician may determine the propriety of his conduct in his relationship with patients.

SECTION 1

The principal object of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion.

SECTION 2

Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefit of their professional attainments.

SECTION 3

Physicians should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle.

SECTION 4

The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession.

SECTION 5

A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may not continue his services only after giving adequate notice. He should not solicit patients.

SECTION 6

A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care.

SECTION 7

In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interests of the patient.

SECTION 8

A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby.

SECTION 9

A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required by law or unless it becomes necessary in order to protect the welfare of the individual or of the community.

SECTION 10

The honored ideas of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and well-being of the individual and the community.

Adopted by the House of Delegates
AMERICAN MEDICAL ASSOCIATION
New York City, 1957

Medical Ethics

It has been my feeling for some time that the criticisms of the medical profession, by the public, the press and various legislative bodies, have not been entirely without justification. Certainly, I would not say that the entire rank and file of our profession is at fault. I would say that there are enough of our members who do not live up to their oaths and who transgress our code of ethics to bring the criticisms upon our entire group.

As I have pondered over this condition and considered the various changes I come repeatedly to the same conclusion. That is, the majority of incidents bringing our profession into disrespect are based upon either the lack of a sound concept or a total disregard of our medical ethics.

At the last annual meeting of the A.M.A. House of Delegates, June 1957 in New York City a concise statement of Principles of Medical Ethics was adopted. I would like to study these and endeavor to see how each and every one of us could be benefited by giving them careful consideration and application in our every day practices.

Preamble

"These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws, but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public."

Section One

"The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion."

Among the most common complaints heard from patients are the following:

a) Somehow I just don't have confidence in my Doctor.

b) My Doctor is always in a hurry. He will never take the time to explain to me just what is my trouble, or what he hopes to accomplish with his treatment.

c) My Doctor acts like his work is a burden and not a pleasure.

Somehow I can't help but feel that such criticisms would not be forthcoming if all of us really believed in Section One.

Section Two

"Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments."

The great majority of our profession does strive to carry on this principle, but there are a sizeable number who rarely read a medical journal and still more rarely attend a scientific meeting. The informed public realizes this more and more and hence voices its criticism.

Section Three

"A physician should practice a method of healing founded on a scientific basis; and he should not voluntarily associate professionally with anyone who violates this principle."

We are all in agreement on the general intent of this section, but the practical application of it in every day practice demands great tact and patience. In the eyes and the minds of the public a doctor is a doctor. No fine line of distinction is drawn between various types of practice. So when a patient who has been treated by some irregular practitioner or some cultist is presented to you for treatment you must act most carefully. As long as one keeps in mind that the care and welfare of the patient is paramount, he can conduct his actions to be above serious reproach.

Section Four

"The medical profession should safeguard the public and itself against physicians deficient in moral character or professional

competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose without hesitation, illegal or unethical conduct of fellow members of the profession."

This section, to my mind, is the backbone of the entire group. If it were observed faithfully it would solve all of our professional difficulties with the public.

Our profession has no more renegades than other professions, but when a physician violates public laws, or flagrantly flouts conventions he certainly attracts more public attention.

Individual cases cannot be disciplined by one or two brother physicians. Action should be taken solely and deliberately by a group of the man's peers. If such formal action is taken the profession will be rewarded by public esteem.

Section Five

"A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients."

This is an instance where the individual physician must temper his rights and prerogatives with expediency. Should he find himself in a situation or locality in which he is the only medical attendant available, he would most certainly have to render attention.

The solicitation of patients has been abhorred from the earliest beginnings of our profession. In my opinion when this is practiced, by whatever ruse or subterfuge, irrespective of who does it, he who does is not worthy of the title of physician.

Section Six

"A physician should not dispose of his services under terms or conditions which tend to interfere with, or impair the free

and complete exercise of his medical judgment and skill, or tend to cause a deterioration in the quality of medical care."

In these days of growing interest in "third party" medicine, we must be constantly alert, that we are not unwittingly led into contract agreements that would violate this section.

Section Seven

"In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician, provided it is in the best interest of the patient."

I personally know, that this section caused the council, that formulated these principles, more concern than all the rest put together.

You will note that it is most general in its statements "provided it is in the best interests of the patients." It was felt that when the intent, to victimize the patient, was present no rule could be written that could not be circumvented, so it was decided to code only a general rule.

This section makes a very definite statement in regards to the ethics of "fee splitting," rebates and commissions that needs no elaboration.

Section Eight

"A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby."

This section is very often disregarded and why I have never satisfactorily been able to understand. A request by the family for consultation is not necessarily mistrust. There may be a division of family thinking and a consultation would smooth this out or, realizing that an unfavorable outcome

might ensue, the family may wish to feel they have left no stone unturned. Secondly, in difficult and doubtful cases many medico-legal difficulties could be prevented by having written consultations.

Section Nine

"A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless it becomes necessary in order to protect the welfare of the individual or the community."

Not infrequently we hear careless remarks based upon confidences which are picked up and passed on with elaborations. I find it a good rule never to discuss socially a patient or his condition. Sometimes we

have to be a little abrupt, but I believe it pays off in the long run.

Section Ten

"The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and well being of the individual and the community."

In other words, you cannot live unto yourself alone—but must share responsibilities as any other citizen, putting your standing in your community ahead of trying to make a "fast buck."—*John Flack Burton, M.D.*

Time Out

Thomas C. Points, M.D.

"Well, Young Sir, in answer to your request to describe the most difficult problem encountered during my forty years of practice there is only one word *TIME*. '*TIME* to do something and *TIME* to do nothing'."

Twenty years have sped by since this request of the old practitioner was made by the sophomore medical student. During these twenty years the speed of living has surpassed even the most fictional estimate of the thirties.

The 350 horse-power automobile has become a must; the jet plane, atom powered vehicles, sputniks and space travel along with instant electronic sterilization have all been added to our way of living. These have been invented to race the hands of the clock for survival or to save a few minutes so that humans can go speeding along to do something else in a hurry.

Sure, the practice of medicine is a highly competitive business, and seems to become more so with each addition of new time saving innovations. Not all of the satisfaction derived from medicine has a dollar mark on it, but we humans are living in a horror world of our own faults. In the

frantic search and drive for wealth and position, mistaken illusions and hallucinations are replacements of reality. We labor and toil and fret and worry about the pot of gold at the end of the rainbow only to find that what we thought was so important is only phantasy.

We want a bigger house—so we get a bigger house, and we find it only means more taxes to pay, more rooms to clean, more windows to wash, and more servants. So we get more servants, and we find they don't come to work half of the time and when they do, it takes more work to get them to do the work than if we did the work ourselves. To top it off we have to collect social security from them and pay it with the quarterly and yearly returns.

We want a bigger car. So we get a bigger car and find that it runs out of gas twice as often and requires the more expensive extra premium gas. It has more gadgets to get out of order and we can't park it unless we find room for two cars—which is available only outside the city limits.

We want more wealth; figuring all of our

(Continued on Page 228)

Scientific Articles

OPHTHALMOLOGY, OPTOMETRY and OPTICIANRY

The Oklahoma Eye, Ear, Nose and Throat Society in this first of several communications to the *Journal*, wishes to discuss the relationship of the above groups and the relationship of each to the practice of general medicine in Oklahoma.

The National Medical Foundation for Eye Care, with offices at 250 West 57th Street, New York 18, New York, is composed of approximately 3000 practicing ophthalmologists in the United States. The definitions of the above groups as stated by the National Medical Foundation for Eye Care is as follows:

AN OPHTHALMOLOGIST is a physician—a Doctor of Medicine—who specializes in the care of the eye and all the related structures. He diagnoses and treats defects of focus, disorders of function, and all other diseases of the eye, prescribing whatever is required, including glasses. He is often concerned, as a consultant member of the medical team, with diseases of other systems of the body or general diseases which manifest themselves in the eyes—diabetes, toxemia of pregnancy, cancer, multiple sclerosis, tuberculosis and other infections, hypertension, muscular dystrophy, brain tumor and heart disease, among others. Ophthalmology is a branch of medicine and the ophthalmologist is an eye physician and usually also an eye surgeon.

An ophthalmologist has first completed the full course of medical studies, received the degree of M.D. (Doctor of Medicine), served an internship in general medicine and surgery in an approved hospital, and has then taken special training in ophthalmology. Like the family physician, the ophthalmologist and all other medical specialists are licensed to practice all branches of medicine and surgery.

Oculist is a less commonly used name for ophthalmologist.

Other terms which you should understand in connection with eye care are:

AN OPTICIAN is a skilled technician, auxiliary to medicine, who supplies and fits glasses on the prescription of a physician. He is trained to make the necessary facial measurements; to formulate the specifications necessary, and to make the glasses or other appliances; and to adapt them to the patient, placing them properly in relation to the eyes. He supplies glasses or other appliances only on the doctor's authorization.

AN OPTOMETRIST is a person who has met certain legal and educational requirements and is licensed by the state to engage in the practice of optometry. He is *not* a physician or a doctor of medicine. The word *optometry* comes from two Greek words—*opto*, meaning "eye", and *meter*, "measure". The optometrist measures the focus of the eye for glasses. He is not qualified or permitted to use drugs for these tests or for any other purpose. He is not qualified or permitted to diagnose or to treat ocular disease. He may supply glasses on his own prescription. In most states he is also permitted, like the optician, to fill the ophthalmologist's prescription for glasses. By law he is a limited practitioner.

The National Medical Foundation for Eye Care was established for the purpose of gathering, studying, and disseminating information to the medical profession and the public relating to scientific eye care. It serves the public interest by helping the American people to understand the basic professional and scientific standards of good eye care, and the qualifications and functions of ophthalmologists.

STOP RHEUMATIC FEVER

HAROLD G. MUCHMORE, M.D.

After rheumatic fever has developed, a different treatment program is necessary. Since there is no *specific* therapy for the damage caused by rheumatic fever, there is no uniformly accepted plan of treatment. Any adequate treatment schedule must contain provision for various important features of rheumatic fever. Details of therapy should be varied to suit the individual patient. Of prime importance in acute rheumatic fever is elimination of Group A streptococci responsible for the attack, and capable of aggravating and prolonging it. Patients with untreated streptococcal pharyngitis may harbor these organisms in the nasopharynx for many weeks after acute symptoms and signs have subsided. Details of the therapy and prevention of streptococcal infections have been previously covered.

The use of anti-inflammatory agents is a second important aspect in the treatment of acute rheumatic fever. These include the various salicylates, adreno-cortical hormones and adreno-corticotropin (ACTH). The efficacy of these hormones in suppressing the inflammatory process of rheumatic fever is well established, but the mechanism by which the suppression occurs has not been thoroughly explained. It has been suggested that the anti-inflammatory activity of salicylates is due to inhibition of several enzymes, notably hyaluronidase and fibrinolysin. However, the concentration of salicylate required to produce these inhibitions is higher than that usually achieved during treatment. Salicylates are also capable of preventing the appearance of shock produced by the injection of egg albumin into rabbits previously sensitized to this material. Likewise salicylates will protect horse-serum-sensitized rabbits from the development of arterial lesions produced by the injection of this serum. However, these reactions described above are not definitely related to the pathogenesis of rheumatic fever, and these mechanisms do not provide an adequate explanation of salicylate action.

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This is the ninth in a series of articles prepared for the *Journal* under the auspices of the Oklahoma State Heart Association and its Committee on Professional Education, emphasizing the theme for the current year.

The similarity of salicylate activity to the actions of adrenocorticotrophic hormone and to cortisone led to speculation that possibly salicylates might act through the pituitary-adrenal system. Recent experimental evidence indicates that high salicylate dosage causes pituitary stimulation with a resultant increase in adrenocortico-steroid production. Aspirin is more active in this respect than is salicylic acid itself. This explanation of salicylate action is more attractive than those mentioned earlier. However, proof that pituitary-adrenal stimulation is responsible for the observed benefits of salicylate in rheumatic fever will require more evidence than is presently available.

Adequate doses usually provide relief from joint pain and swelling, decline in fever, and decrease in heart rate. Aspirin is as effective as other salicylates and is better tolerated. The dosage of salicylates required to achieve clinical benefit is high and approaches the amount at which signs of salicylate poisoning appear. Adequate symptomatic response usually occurs from a total daily oral dosage of approximately one grain per pound of body weight, usually given in divided doses four hours apart. This dosage level should be continued until there is relief of joint symptoms, disappearance of fever, and decline of serum C-reactive protein levels toward zero. Then the

daily dose may be reduced to two-thirds of the initial amount, with maintenance at the lower level until after all evidences of active rheumatic fever have disappeared. This may be several weeks or months. Unfortunately salicylates exhibit toxic reactions including local irritation of the stomach, vomiting, hyperventilation, tetany, acid-base disturbance and hemorrhagic tendency.

If the patient fails to achieve an adequate response to or is unable to tolerate salicylate therapy, he should receive cortisone or a similar preparation. In the average adult patient oral cortisone given in four divided doses totalling 300 mg. daily will usually produce the desired response. After this occurs, the daily dose is decreased to a total of 200 mg. This dosage is maintained until all evidence of active rheumatic fever has disappeared. Determination of appropriate dosage is determined by patient response, i.e., control of inflammatory signs and symptoms and the absence of undesirable side reactions. Other substances possessing glucocorticoid activity such as hydrocortisone, prednisone or any others may be satisfactorily substituted for cortisone, with appropriate dosage reductions for each drug.

All glucocorticoid agents may produce undesirable side effects such as electrolyte disturbances, derangement of water and carbohydrate metabolism, hypertension, fat deposition, decreased resistance to infection and mental changes. These effects may be so severe as to contribute further to the patient's illness, but usually they can be avoided by careful adjustment of dosage. Because of these side effects it is preferable to try to control the symptoms with salicylates initially, and to utilize these more potent substances only if an adequate response cannot be achieved, or if the patient cannot tolerate the required amount of salicylates. However, if active rheumatic carditis is present adrenocorticoids should be used initially unless there are contra-indications.

Therapy with salicylates and adrenocorticoids suppresses symptoms, but is not curative. Treatment must be continued until rheumatic activity has ceased. If the drugs

are withdrawn too early, or the dosage is reduced too rapidly, relapses with reappearance of symptoms will occur. A minimum treatment period of six weeks is generally recommended, and fewer relapses occur if this period is extended to nine or twelve weeks. It is permissible to use the salicylates and adrenocorticoids simultaneously or to switch from adrenocorticoids to salicylates as the patient improves. Rate of dosage reduction of the adrenocorticoids must be adjusted to avoid withdrawal symptoms. If the inflammatory symptoms are adequately controlled by either of these agents, there is no evidence that addition of the other is beneficial.

A third aspect of an effective program for the treatment of acute rheumatic fever is bed rest. Currently strict bed rest is not considered of such paramount importance as formerly. Partly this change in attitude is due to a realistic acceptance of the difficulty in achieving strict bed rest. This difficulty stems not only from the mechanical problems of nursing care, feeding and waste disposal, but to the inability of the average patient, particularly of younger ages, to accept the desired restrictions of physical activity. However, there is little doubt that restriction of activity is beneficial. The diligence with which activity restriction should be pursued can be guided by the degree of the patient's symptomatic response to the anti-inflammatory drugs. Frequently sedentary activity and appropriate occupational therapy may be helpful in achieving better patient-acceptance of the treatment program by avoiding the restlessness and resentment that may be produced by a vigorous bed rest campaign. The presence of an active rheumatic carditis indicates the necessity of a stricter rest program. With the disappearance of all inflammatory symptoms the patient enters the convalescent period. The treatment aim during this period is to restore the patient to his pre-sickness state as rapidly as possible. This is usually best accomplished by graded increases in activity, but no fixed rules can be followed, and an individual program is followed for each patient, including appropri-

ate observations and laboratory tests. Penicillin prophylaxis for streptococcal infections is mandatory.

Sydenham's chorea, fortunately an uncommon complication of rheumatic fever, does not respond predictably to any form for therapy, despite various favorable reports. Its course is self-limited, and the treatment of most definite value is the control of inflammatory symptoms of the rheumatic fever itself. Chlorpromazine and Rauwolfia preparations have been favorably reported. Probably sedation, attention to nutrition and good nursing care combined with the anti-inflammatory drugs constitute the best currently available program for treatment of Sydenham's chorea.

Rheumatic carditis is the most serious manifestation of acute rheumatic fever and the primary aim of any treatment program should be the prevention of permanent cardiac damage. Appropriate measures in addition to the anti-inflammatory drugs and bed rest may include digitalis preparations and management of congestive heart fail-

ure. Because of the potential seriousness of rheumatic carditis the treatment of this manifestation will be more extensively considered in a later article.

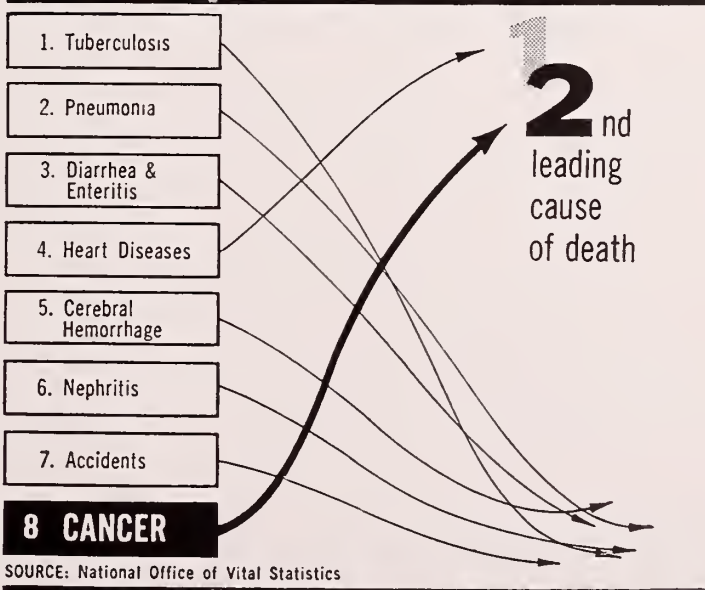
A brief treatment program for the management of acute rheumatic fever has been presented. Elimination of Group A streptococci at the onset and continuous prophylaxis against the streptococcal infection is essential to STOP RHEUMATIC FEVER. Control of the inflammatory symptoms of rheumatic fever can be accomplished with salicylates or adreno-corticosteroids. Suppression of these symptoms should be continued until all signs of acute rheumatic fever have disappeared. Rest, attention to nutrition, avoidance of boredom and fatigue are important aspects of treatment. Rheumatic carditis is the most serious manifestation of acute rheumatic fever and demands painstaking care to minimize the occurrence of permanent rheumatic heart disease.

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LEADING CAUSES OF DEATH IN U. S.

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BACTERIAL RESISTANCE *to* ANTIBIOTICS*

H. H. RAMSEY, Ph. D.

The discovery of penicillin in 1929 by Sir Alexander Fleming, and the subsequent discovery of scores of other antibiotics was once viewed as the end of infectious diseases in man. History has shown this over enthusiastic view to be erroneous. One particular difficulty which has been encountered in the use of antibiotics is the fact that many organisms are not inhibited by these agents. These so-called "natively" resistant organisms are those which are not inhibited by an antibiotic even though they have never, to our knowledge, been exposed to the drug. It is assumed in this case that, in the process of evolution, natural selective forces have brought about the emergence of these resistant strains. They derive their resistance from the fact that they do not possess the particular enzymatic reaction which is inhibited by the antibiotic or they possess some means of circumventing the inhibitory action of the drug, or they are able to inactivate the antibiotic. A case in point here is the well known resistance of most gram-negative bacteria to penicillin. Here we assume that the reaction which is inhibited in gram-positive species does not occur in gram-negative species; or, if it occurs, it is of minor importance in the overall function of the organism. This particular reaction is involved in the synthesis of

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the cell wall of gram-positive organisms. If susceptible species are placed in contact with an inhibitory concentration of penicillin, bizarre and involution forms appear and a uridine nucleotide accumulates in the organism.¹ This uridine nucleotide would otherwise be incorporated into the cell wall of the organism if penicillin were not present. This indicates that non-susceptible species have a cell wall composition which differs from that in the susceptible species.

In contrast to the natively resistant species many organisms, as they exist in nature, are quite sensitive to penicillin. However, upon repeated or prolonged exposure to sub-lethal concentrations of the drug they "acquire" resistance to the drug.² At least one mechanism of resistance is well known and has been studied intensively. This is the ability of resistant organisms to produce an enzyme, penicillinase, which selectively inactivates penicillin.³ The enzyme is termed an "inducible" enzyme since it is produced only in the presence of penicillin: that is, penicillin induces the formation of the enzyme. This is a highly specific form of resistance and consequently, organisms which produce penicillinase retain their susceptibility to other

*The investigations carried out in this laboratory have been supported by funds from the Research Committee of the University of Oklahoma School of Medicine and by a grant, E-605, from the National Institute for Allergy and Infectious Diseases, U. S. Public Health Service.

antibiotics. Most, if not all, strains of *Micrococcus pyogenes* which have been isolated from clinical cases as resistant forms, have been shown to produce penicillinase.⁴

Another frequently encountered case of acquired resistance to an antibiotic occurs in streptomycin therapy of tuberculosis. *Mycobacterium tuberculosis* becomes resistant to streptomycin with dismaying rapidity. For this reason, other drugs, particularly isoniazid and para-aminosalicylic acid are used along with streptomycin. The net effect of combined drug therapy is to prevent or delay the emergence of resistant forms and thus allow for prolonged therapy.⁵

Although combinations of drugs have been shown to be effective in the case of tuberculosis, many combinations of antibiotics are not effective and, indeed, in many instances, two antibiotics when combined are less effective than either when used alone. In general, antibiotics can be divided into two groups.⁶ Group I contains penicillin, streptomycin, bacitracin, neomycin and polymyxin B. These antibiotics are often synergistic with each other, are sometimes additive in their effect and are rarely antagonistic to each other. Group II includes the tetracyclines, chloramphenicol and erythromycin (the sulfonamides also probably belong here). The members of this group are usually merely additive with each other; they are rarely antagonistic or synergistic when combined. The effect of combining a drug in Group I with a drug in Group II is not easy to predict and, wherever possible, laboratory studies on the combined effect should be performed. Many times a bacteriostatic agent such as chloramphenicol will actually be antagonistic to a bactericidal agent such as penicillin. There is a rational explanation for this. In order for penicillin to kill a cell, that cell must be actively metabolizing or growing. If an agent is added which inhibits this metabolism then penicillin will lose its effectiveness. In contrast, we have demonstrated that chloramphenicol, which is a bacteriostatic agent, is least effective when cells are actively metabolizing.⁹ It would therefore appear that chloramphenicol and penicillin inhibit microbial growth by entirely different mechan-

isms and there is no *a priori* reason to assume that a combination of the two will be superior to either when used alone.

Aside from the well-documented case of penicillinase, little is known concerning mechanisms of resistance. An enzyme, chloramphenicol reductase, has been found which degrades chloramphenicol to an inactive amine.⁷ However, in this laboratory we have been unable to correlate chloramphenicol resistance of *M. pyogenes* with production of the enzyme. We have found that both sensitive and resistant organisms are uniformly negative in their ability to produce an enzyme which destroys chloramphenicol.

Another suggested mechanism of resistance has been a decrease in permeability of resistant organisms with the result that the antibiotic is unable to penetrate the cell and gain access to the sensitive enzymatic site of action. Such a possibility has been suggested in chloramphenicol-resistant strains of *Pseudomonas*.⁸ Doctor R. E. Bowling, working here, was unable to show a decreased permeability in a chloramphenicol-resistant strain of *M. pyogenes*. If anything, our resistant organism was shown to be more permeable to such compounds as amino acids than is the sensitive organism. This has raised the interesting possibility that, in this instance, resistance is associated with an increased ability of the cell to incorporate essential compounds into its cellular constituents. We have previously demonstrated that many compounds tend to counteract the inhibitory effect of chloramphenicol,⁹ and their ability to negate the inhibitory effect was in direct proportion to their ability to stimulate growth of the organism.¹⁰ Since chloramphenicol is known to inhibit protein synthesis, it is tempting to speculate that resistance resides in the ability of the organism to increase its rate of protein synthesis or to use an alternate metabolic pathway for synthesis of protein; experiments designed to test these possibilities are now under way.

An interesting explanation of aureomycin resistance in *Escherichia coli* has recently been offered by a group of investigators at the National Institutes of Health.¹¹ It was

observed that an enzyme present in both sensitive and resistant strains varies in its affinity for riboflavin and also for aureomycin. The enzyme in the sensitive organism contains riboflavin and this riboflavin can be dissociated easily from the protein portion of the enzyme. This dissociated enzyme now has a high affinity for aureomycin. The resistant enzyme, on the other hand, has riboflavin bound much more firmly and also has a decreased affinity for the antibiotic. It would appear, then, that resistance is due to the ability of the organism to produce an altered enzyme which is no longer susceptible to the inhibitory agent.

From these remarks, it is evident that antibiotic resistance is very poorly understood in most instances. Indeed, our knowledge of how an antibiotic inhibits and how an organism overcomes this inhibition has lagged far behind the discovery and use of antibiotics. In many cases, the phenomenon of resistance is of purely academic interest. Only in the case of the penicillin-resistant staphylococci and the streptomycin-resistant tubercle bacillus has a serious problem arisen for the physician. However, since these organisms can acquire resistance to antibiotics, and since we can easily produce, *in vitro*, strains of many bacteria which are resistant to all antibiotics, it is reasonable to assume that other forms of resistance will emerge in the future. If we are to cope with these difficulties, it is necessary to understand how resistance arises, and how it can be prevented or overcome. Another contribution which such studies can make is the understanding of adaptability of living matter. Here we have an ideal tool for studying the comparative biochemistry and physiology of "normal" versus "abnormal" cells. Such a study has been under way here for several years. It was first observed that chloramphenicol resistance was accompanied by decreased requirements by *M. pyogenes* for the vitamins niacin and thiamine.¹² This work has since been confirmed by workers in other laboratories. Further investigation revealed that the resistant organisms were deficient metabolically in that they failed to oxidize pyruvic acid, a key intermediate compound in carbohydrate metabolism; the sensitive organism, on the other

hand, oxidized pyruvate quite rapidly.¹³ Thus far we have not been able to directly correlate these metabolic changes with chloramphenicol resistance. Whether there is such a correlation remains to be seen. However, it does seem significant that with most cases of resistance which have been studied, decreased growth requirements and decreased metabolic activities have accompanied resistance. From this, one might assume that resistance, in many instances, is due to an ability of the organism to by-pass the reaction which is inhibited by the antibiotic. This, however, is not so straightforward as might appear and whether or not this assumption is justified will depend upon further experimentation.

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The first Oklahoma Colloquy on Advances in Medicine was held in February. Ten prominent investigators presented papers on Fluid, Electrolyte and Nutritional Balance. Two hundred and nine physicians registered for the Colloquy, with 44 of these from out-of-state. Portions of the Colloquy will appear in the recordings of Audio-Digest and the entire proceedings will be published in book form.

Doctor John Mueller, from the University of Cincinnati, presented two papers^{1,2} based upon his studies on the intravenous use of fat emulsions. He reported that the older preparations gave a reaction rate of 51 per cent which included fever, blood pressure alterations, dyspnea, cyanosis, and shock. The incidence of reactions with the newer preparations is 33 per cent, and the majority are mild febrile reactions which are short-lived and not clinically significant. The effect of repeated infusions of fat in the same individual is a more important consideration than the acute mild reactions. A few patients have been reported who developed a severe reaction after multiple infusions of fat emulsion. Doctor Mueller reported studies concerning these reactions. The syndrome is characterized by high fever, hepatosplenomegaly, jaundice, anemia, bleeding tendency, abdominal pain, nausea, and vomiting. All of the patients with this reaction were consuming an adequate diet during the infusion period. This suggests that this may be an "overloading" syndrome. One patient showed an apparent response to hydrocortisone. The pathophysiology of the reaction remains unclear despite extensive studies. Doctor Mueller concluded that at the moment it would seem that prolonged administration of a fat emulsion should be accomplished with care and the realization that a severe reaction may occur.

Dr. Robert Cooke, Department of Pediatrics, Johns Hopkins University, discussed water intoxication in pediatrics and surgery.³ He defined water intoxication as the complex of neurologic symptoms resulting from a rapid decrease in osmolarity of ex-

tracellular fluid. Since sodium chloride represents the bulk solute of extracellular fluid, water intoxication for all practical purposes results from a rapid fall in sodium concentration. A lowered concentration of sodium in the serum may result (1) from a decrease in the amount of sodium in the extracellular space, (2) from an increase in the volume of extracellular water, and (3) from a combination of the above two factors. A decrease in sodium in the extracellular space may result from an inadequate intake or excessive losses from the gastrointestinal tract in vomiting or diarrhea, in various renal diseases, and from sweating. The most important cause of expansion of extracellular volume is excessive intake, usually the administration of glucose in water parenterally. The emergency treatment of water intoxication is similar regardless of the mechanisms leading to hyponatremia. The usual anticonvulsants are ineffective in treating the seizures of water intoxication. Hypertonic saline should be given intravenously. Doctor Cooke emphasized that the syndrome may be prevented by an adequate supply of electrolyte to meet abnormal losses and limitation of water intake so that retention does not occur. The treatment needs to be individualized, and principles of this treatment will appear in Doctor Cooke's paper.

Doctor William Schottstaedt and Doctor Robert Barnes,⁴ University of Oklahoma, reported on the effects of stress upon fluid and electrolyte metabolism. In studies performed on healthy subjects and on patients with cardiac disease, similar results were obtained. Feelings of tension were associated with decreased urinary volume and urinary sodium, while feelings of anxiety were associated with a diuresis of these substances. They concluded that there is nothing mysterious or occult in the common observation that emotional reactions affect the course of a patient's illness. These responses evoke the same mechanisms which are utilized by the body to meet physical stresses. At times these mechanisms operate to maintain or to restore homeostasis,

as when the diuresis of relaxation helps rid the patient with cardiac failure of excess body fluid. But these same mechanisms may, under other circumstances, lead to serious derangements of bodily economy requiring for their correction the interest and the therapeutic efforts of the physician.

Doctor J. U. Schlegel, University of Rochester, reported upon the use of osmotic diuretics in surgery.⁵ He believed that osmotic diuretics were helpful where a water diuresis was desirable. Substances which were used were mannitol, sucrose, and urea. He preferred urea since both mannitol and sucrose expand the extracellular space and may lead to pulmonary edema. Urea has the disadvantage of being heat-labile, requiring sterilization by filtration, and storage in either a lyophilized form or under refrigeration. It has to be given either glucose or saline since urea in water alone can cause hemolysis. The use of urea in several hundred patients did not produce any side effects, and in some cases was considered life-saving. Details of the preparation of these solutions and their indications will appear in the complete paper.

Doctor Curtis Artz, University of Mississippi, presented A Practical Guide to Fluid Therapy in Burns⁶ and Metabolic Response to Injury.⁷ He emphasized that the primary derangement after burn injury is loss of fluid from the intravascular compartment brought about by vaso-dilatation and increased capillary permeability. The amount

of fluid lost varies with the extensiveness of the burn. He presented in detail methods to calculate the loss and a day-by-day suggested plan for correcting these abnormalities.

Additional papers will be reviewed in subsequent issues of the *Journal*.

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The Second Oklahoma Colloquy on Advances in Medicine will be held November 12-15, 1958. The topic for this Colloquy is Arthritis, Rheumatic Diseases, and Related Disorders. Again, 10 investigators will be invited to present the results of their original work. Among the speakers who have already accepted are Doctor Morris Ziff, Department of Medicine, New York University College of Medicine, and Dr. C. H. Slocumb, Clinical Section, Mayo Clinic, Rochester, Minnesota.

ABSTRACTS

The Effect of Aging on Mucopolysaccharide Composition of Human Costal Cartilage Measured by Hexosamine and Uronic Acid Content

GEORGE STIDWORTHY,* YANNA F. MASTERS,** and M. R. SHETLAR***

J. Gerontology 13, 10-13, January, 1958

From the Department of Biochemistry, University of Oklahoma School of Medicine and the Research Laboratory, VA Hospital, Oklahoma City.

In confirmation of earlier work (Shetlar and Masters; Joel, Masters, and Shetlar) the mucopolysaccharides of cartilage were found to change with age.

In this research a procedure was developed for quantitative studies of glucuronic acid and galactosamine (chondrosamine), the monosaccharide constituents of the chondroitin sulfate of cartilage. Both of these constituents are highest in fetal cartilage samples and decrease strikingly with age. Glucosamine was found to be initially low in fetal cartilage, but increased with age until maturity and then remained relatively constant. The glucosamine is presumed to be present as part of one or more neutral polysaccharides. Other monosaccharide constituents identified by paper chromatograph were galactose, mannose, fucose, and glucose.

*Biochemist VA Hospital.

**Biochemist VA Hospital.

***Associate Professor of Biochemistry, University of Oklahoma School of Medicine.

Who Practices Industrial Medicine? Results of a Survey in Oklahoma

JEAN SPENCER FELTON, M.D.*

Industrial Medicine and Surgery, 26:12, 525-535, December, 1957. (Copyright, 1957 Industrial Medicine Publishing Company)

Summary

1. Questionnaires regarding the amount of industrial medicine practice carried on in Oklahoma were forwarded to 1520 physicians.

2. Of these, 740 were returned, representing a response of 48.6%.

3. By specialty 43% were in general practice, with the remainder scattered throughout all the other specialty areas.

4. Some teaching in medicine was carried on by 35.7% of the respondents.

5. In consideration of the size of the community where the respondents were practicing, it was noted that 40.3% were practicing in communities of over 100,000 in population, and a little over 50% had been in practice for periods up to 15 years.

6. The most significant figure derived from this study was: 79.5% of the physicians in Oklahoma carry on one or more of the types of industrial medical practice enumerated.

7. In connection with percentage of income derived from industrial medical practice, 75.3% of the physicians replying, accrued anywhere from less than 5% to 100% of the income from this area.

8. Time-wise, 72.2% of the respondents devoted less than 10% to 100% of their time to industrial medical practice.

9. The industrial connections of these physicians were highest from multiple industries (35.7%); second in frequency was the petroleum industry (12.7%).

10. Of these completing the questionnaire, 430 returned the attached coupons, stating that they wished to be advised of new opportunities in industrial medicine.

11. Cross-classifications wherein income data, specialty designation, time information, community populations, etc., are studied, may be found in the text.

Conclusions

1. A greater percentage of physicians practice industrial medicine than a casual inquiry would indicate.

2. Were it possible to convert the percentage of income figures into monetary values, it would be found that a substantial income accrues to most medical practitioners from their connections with referring industrial organizations.

3. These data should be made known to the undergraduate medical student so that greater meaning can be attached to the training program in occupa-

*Professor of Preventive Medicine (Occupational Medicine) University of Oklahoma School of Medicine, Oklahoma City.

tional medicine at that period of his schooling when, to him, his future participation in this specialty seems remote.

Objective Evaluation of Patients With Rheumatic Diseases III. Comparison of Serum Glycoprotein, Seromucoid, and C-Reactive Protein As Methods for the Evaluation of Patients With Rheumatic Fever

M. R. SHETLAR,* R. W. PAYNE,** HENRY B. STRENGE,*** and JANE BULLOCK FAULKNER****

J. Pediatrics 51, 510-515, November, 1957

From the Departments of Biochemistry, Pharmacology, Pediatrics, and Medicine, University of Oklahoma School of Medicine, and the Research Laboratory, VA Hospital, Oklahoma City.

Serum glycoprotein, seromucoid, and C-reactive protein determinations were compared with erythrocyte sedimentation rates and anti-streptolysin O determinations as objective methods of evaluating patients with rheumatic fever. In general patients were rated clinically inactive before any of the laboratory tests reached normal levels. As activity subsided, serum C-reactive protein concentrations fell most rapidly followed by seromucoid, then by serum glycoprotein and finally by sedimentation rates and anti-streptolysin O titers.

*Associate Professor of Biochemistry, University of Oklahoma School of Medicine.

**Associate Professor of Pharmacology and Instructor in Medicine, University of Oklahoma School of Medicine.

***Professor of Pediatrics, University of Oklahoma School of Medicine, now in private practice at Boulder, Colorado.

****Biochemist VA Hospital.

Effect of Prolonged Thyroid Administration on Aged Male Rats

McARTHUR, L. G.,* LHOTKA, J. F.,** and HELLEBAUM, A. A.***

Nature 180, 1123-1124.

Tissues from 19 twenty four month old male rats which had been administered "Prolid" (Warner-Chilcott purified thyroid extract) daily (0.18 mgm.) for 10 months prior to death were examined for gross and histological alterations in all principal organs. Seven techniques were used with special emphasis on procedures demonstrating changes in tissue polysaccharides. Exhaustive examination revealed no consistent variations from normal animals resulting from the prolonged administration of the drug. Physiological examinations of the animals prior to death suggests that when exogenous thyroid has been administered to aged rats over a prolonged period of time thyroid function is to some extent altered; but this depression is not sufficient to counteract the additional stimulus produced by the thyroid fed to the animal.

*Research Assistant in Pharmacology.

**Associate Professor of Anatomy.

***Professor of Pharmacology.

Faculty News



WILLIAM E. JAKUES, M.D.

William E. Jaques, M.D., pictured above, has succeeded Doctor Howard C. Hopps as Professor and Chairman of the Department of Pathology.

Doctor Jaques received his M.D. Degree from McGill University in 1942, interned at Bridgeport Hospital in Bridgeport, Connecticut and took his residency training in Pathology at various hospitals in Boston, Massachusetts. He then served as Pathologist to Childrens Medical Center and Peter Bent Brigham Hospitals in Boston. After leaving Boston Doctor Jaques progressed to Acting Head of the Department of Pathology at Louisiana State University School of Medicine before coming to The University of Oklahoma School of Medicine on June 1, 1957.

In addition to Doctor Jaques' pre-eminent qualifications as an experienced pathologist and teacher of the subject he has also distinguished himself by an active and pro-

ductive research program. Present interests include the study of pulmonary dynamics and histologic findings in dogs following the production of supravulvar mitral stenosis. The important discovery of a direct renal effect of digitalis in provoking sodium excretion is credited to Doctor Jaques and has been confirmed by other investigators. Since his arrival at the Medical School Doctor Jaques has initiated a broad study on amniotic fluid embolism in conjunction with members of the Departments of Obstetrics and Medicine.

Rene Menguy, M.D., from the Surgical Service of the Oklahoma City Veterans Administration Hospital and the Department of Surgery, University of Oklahoma, was recently appointed as a Markle Scholar. He is the second faculty member to receive such an appointment while working at the Medical Center. The fund for these scholarships was placed in trust by John and Mary Markle, and the income from this fund is used to support individuals, who have finished basic postgraduate education, in the field of research in medical sciences. Candidates are nominated by all medical schools in the United States and Canada, and are selected after an extensive series of interviews. The competition for these awards is intense. The scholarship is used to support young scientists in academic medicine. The appointments are for five years. It is a real honor for the University of Oklahoma Faculty to now include two members who are Markle Scholars. Merlin K. DuVal, M.D., Assistant Professor of Surgery, is the other Markle Scholar.

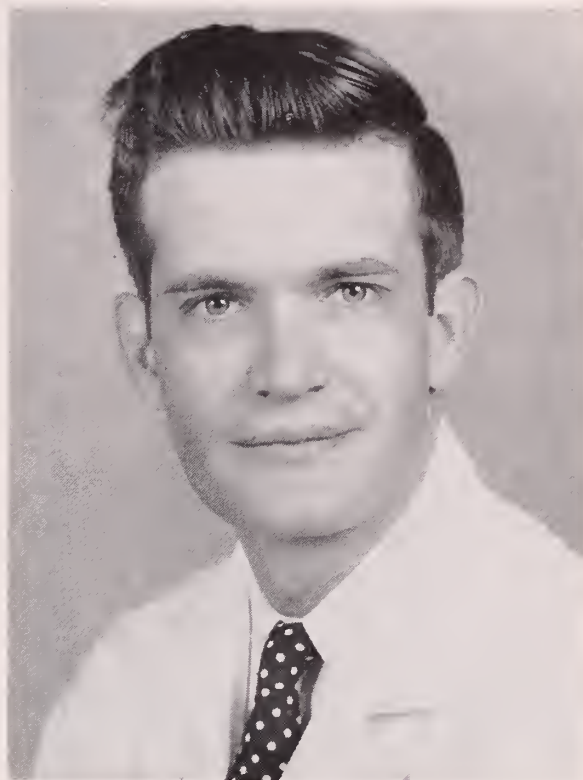
A Clinical Psychology Traineeship program has recently been established at the Veterans Administration Hospital in collaboration with the Department of Psychology of the University of Oklahoma. There are presently two trainees, Mr. William J. Mummery and Mr. Ira Goldberg, now in residence at the VA Hospital.

Allen R. Hennes, M.D., joined the staff of the VA Hospital on January 6, 1958, as Assistant Chief of the Medical Service. He also holds an appointment as Assistant Professor of Medicine.

Doctor Hennes graduated from the University of Michigan Medical School in 1949. He interned at the University of Michigan Hospital and served his residency in medicine there. He was a Lt. Senior Grade in the U. S. Navy for two years and returned to the University of Michigan as a National Institute of Health Trainee in Endocrinology. He was an Instructor in Endocrinology and Metabolism at his Alma Mater.

For the past two years he has served as Assistant Scientist and Associate Physician at the Brookhaven National Laboratory, Long Island, New York. His research interests have centered around carbohydrate and fat metabolism. He did some of the early work on the use of oral hypoglycemic agents and more recently has worked on cholesterol synthesis using radioactive carbon.

Rene B. Menguy, M.D., Ph.D., was recently appointed to the Surgical Service of the VA Hospital, Oklahoma City, and to the faculty of the University of Oklahoma School of Medicine as an Instructor in Surgery. Doctor Menguy was graduated from the Faculty of Medicine Medical School in Paris, France, in 1951, interned at the American Hospital Medical School, Chicago, Illinois, in 1952, and was a fellow in general surgery at the Mayo Clinic from 1952 to 1957. He received his Ph.D. in surgery from the University of Minnesota, Minneapolis, Minnesota, in August 1957. Doctor Menguy's research interests have been directed towards the study of physiology of the pancreatic and biliary ducts. He is a member of the American Medical Association and the Minnesota State Medical Association.



HAL RAMSEY, Ph.D.

Hal Ramsey, Ph.D., pictured above, Associate Professor of Microbiology at the University of Oklahoma School of Medicine is an outstanding investigator in the field of bacterial metabolism. On June 1, 1958, he is leaving the Medical School to join the Research Corporation as a field representative.

The appointment of **Gunnar Sevelius, M.D.**, as a Research Fellow was recently announced. Doctor Sevelius will work at the Oklahoma City VA Hospital on a grant from the Area Cardiovascular Grant from the National Institute of Health. He will continue work on a technic he recently developed for determination of renal blood flow. This technic permits the measurement of blood flow in the individual kidneys. Its use in the evaluation of patients with hypertension to discover unilateral renal disease will be explored. Doctor Sevelius graduated from Karolinska Universitet, Stockholm, Sweden, and recently completed a medical residency at the Oklahoma City VA Hospital and Central State Hospital, Norman, Oklahoma.

GRANTS

- Shetlar, Marvin R., *Associate Professor of Biochemistry*—Metabolic Pathways of Serum and Tissue Glycoproteins, U.S. Public Health Service
- Wender, Simon H., *Research Professor of Chemistry*—Metabolism of Bioflavonoids, U.S. Public Health Service
- West, Kelly M., *Instructor in Medicine*—Carbohydrate of Metabolism in Diabetes, U.S. Public Health Service
- Harsha, Wm. M., *Clinical Assistant in Orthopedic Fracture and Surgery*—Histochemistry of Controlled Trauma, U.S. Public Health Service
- Scott, L. V., *Associate Professor of Microbiology*—Aspects of Rous Sarcoma Growth in Vitro, U.S. Public Health Service
- Ramsey, Hal H., *Associate Professor of Microbiology*—Investigation of the Mode of Action of Antibiotics, U.S. Public Health Service
- Rebell, Gerbert, *Associate Professor in Microbiology and in Dermatology*—Fluorescence in Hair Infected with Dermatophyte Fungi, U.S. Public Health Service
- Ramsey, Hal H., *Associate Professor of Microbiology*—A Study of Endogenous Respiration in Micro Organisms—U.S. Public Health Service
- Kelly, Florence C., *Professor of Microbiology*—Variation in Virulence of Staphylococci, U.S. Public Health Service
- Payne, Richard W., *Instructor in Medicine*—Luteinizing Hormone, U.S. Public Health Service
- Bayley, Robert H., *Professor of Medicine*—Electrocardiographic Counter, U.S. Public Health Service
- Wolf, Stewart G., *Professor of Medicine*—Lipoprotein Studies During Stress, U.S. Public Health Service
- Bayley, Robert H., *Professor of Medicine*—Collateral Coronary Circulation, U.S. Public Health Service
- Jaques, Wm. E., *Professor of Pathology*—Changes in Pulmonary Vasculature in Mitral Stenosis, U.S. Public Health Service
- Bird, Robert M., *Associate Professor of Medicine and Surgery*—Graduate Training Grant Under National Advisory Council Arthritis and Metabolic Diseases
- Taylor, A. N., *Professor of Physiology*—Provide Stipends for Students Selected to Do Research and Further Study in Preventive Medicine and Public Health, U.S. Public Health Service
- Felton, Jean S., *Professor of P.M.P.H.*—Comprehensive Plan for an Inter-Disciplinary Training Program in Rehabilitation, U.S. Public Health Service
- Wolf, Stewart, *Professor of Medicine*—Life Stress to Human Metabolism, U.S. Public Health Service
- Clark, Mervin L., *Associate Professor of Medicine*—Effect of Ataractic Agents on Psychotic Patients, U.S. Public Health Service
- Jaques, Wm. E., *Professor of Pathology*—Study of Pulmonary and Vasculature in Micro-Stenosis, U.S. Public Health Service
- Bennett, Henry G., *Associate Professor of Gynecology*—Improvement of Cancer Teaching at O.U. Medical School, U.S. Public Health Service
- Bayley, Robert M., *Professor of Medicine*—Collateral Coronary Circulation, U.S. Public Health Service
- Campbell, Phillip J.—Comparative effects of androgen and estrogen on the anterior pituitary and reproductive system of white rats, U.S. Public Health Service
- Payne, Richard W., *Instructor in Medicine*—Investigate the Effect of Cetyl Trimethyl Ammonium Bromide on Normal Leucocytes, American Medical Association
- Scott, L. V., *Associate Professor of Microbiology*—Studies with Herpes Simplex Virus in Fetal Rabbits, American Cancer Society
- Shetlar, M. R., *Associate Professor of Biochemistry*—Study of drugs manufactured by Crookes-Barnes Lab., Crookes-Barnes Lab.
- Harsha, Wm. N., *Clinical Assistant in Orthopedic and Fracture Surgery*—Study of static distracting and oscillating distracting forces applied across the epiphyseal, Easter Seal Research Fund

RESEARCH FOUNDATION

Section Editor—LEONARD P. ELIEL, M.D. (*Director of Research*)

The work of the Psychosomatic and Neuromuscular Section and of the Behavioral Science Section will be reviewed in this issue.

Psychosomatic and Neuromuscular Section

This section, under the direction of Doctor Stewart Wolf, is engaged in studies in three fields: 1) Biochemistry of the gastric mucous substances, 2) olfactory physiology and 3) the role of the pituitary in the human response to stress.

Studies on the Gastric Juice. The mucous substances of the human gastric juice have been under scrutiny in order to isolate and characterize fractions with specific physiologic and biochemical activities, alterations in which might be related to various diseases such as peptic ulcer, gastric cancer, pernicious anemia and muscular dystrophy. The fractions are isolated by adsorbing them first on a column of resin and then washing them off the column with decreasing concentrations of acid. As the fractions are washed off the column they are collected in many hundreds of separate tubes. In previous work, fractions containing the intrinsic factor have been identified and a fraction, present in normal juice, has been found absent in the juice from patients with myotonic dystrophy. Recently, two separate fractions with proteolytic activity have been identified, one of which is pepsin.

A substance has also been found in the normal gastric juice of dogs which inhibits the secretion of hydrochloric acid and water in stomach pouches. Gastric juice is being treated by the fractionation and column adsorption technique mentioned above (chromatography), in order to isolate the inhibitor. Isolation and characterization of such an inhibitor would offer the possibility of developing a means for the management of gastric hyperacidity and of peptic ulcer.

Other studies, under Dr. Trucco's direction, are concerned with the elucidation of the mechanism by which glucose is converted into the complex sugars which make up gastric mucus. This is being studied by means of glucose labelled with radioactive carbon.

Physiology of Smell. Observations of olfactory acuity and nasal function are being carried out in the smell laboratory (Olfactorium) in the Foundation under the direction of Dr. Robert A. Schneider. Patients receiving various hormones, and patients in various endocrine states, are being studied for their ability to perceive different concentrations of test odors. A definite relationship has been demonstrated between the endocrine status and smell perception. For example, it has been found that there are changes in olfactory acuity with reference to the menstrual cycle, the greatest acuity being present during menses and the least after menses. It is the hope that the work of this section will provide new information with regard to olfactory perception in various physiologic and disease states.

The Relationship of the Pituitary to the Response to Stress. The Psychosomatic Section, in collaboration with the Cancer Section, has carried out during the past few months a study of the response to stress before and after hypophysectomy in patients with advanced breast carcinoma. The role of the pituitary in the response to stress will, it is hoped, be elucidated. The stresses used are the cold pressor test and the sonic confuser, a microphone-earphone device with a 0.2 second delay. Patients' metabolic responses are studied by determining blood sugar levels, eosinophil count, urine volume, and renal excretion of Na, K, and N. Using a Keeler polygraph, a record is also obtained of pulse, respiration, basal skin resistance, and galvanic skin responses. A series of patients will be studied before and after operation and a comparable control group

will be used to learn the effects of test repetition. These studies have not yet progressed sufficiently to justify a summary of results. (See references 1, 2, 3 for papers from this section.)

Behavioral Sciences Section

Prisoners of War. The Behavioral Sciences section, headed by Dr. Louis J. West, is working under contract with the United States Air Force in research involving psychological reactions to stress encountered in military captivity. During the past six months, an unclassified bibliography, a 393 page document, containing 2092 references with annotations, and an appendix containing critical abstracts of the most important references, was completed. The bibliography bears the title: "Prisoners of War, Civilian Internees, and Political Prisoners." A compendium discussing medical, psychological and social aspects of prisoner of war and concentration camp experiences is being prepared at this time by the members of the research team.

Adolescent Studies. During the past six months, the Behavioral Sciences section has begun a study of puberty and adolescence. Almost 3000 references have been gathered, representing an exhaustive survey of published material related to puberty and adolescence. Evaluation of this material has begun, and efforts are being made to obtain funds to set up a seven year extensive study of the interrelations of biological, psychological, and social factors in the behavior of adolescents in Oklahoma City.

In September, 1957, Mr. C. V. Ramana, psychoanalyst, was added to the staff. Mr. Ramana was formerly associated with the

Children's Unit of the National Institutes of Mental Health, Bethesda, Maryland, and was engaged in studying and treating disturbed children. (See references 4 to 11 for papers from this Section.)

In the next issue the work of The Endocrinology and Metabolism Section and of the Dental Section will be presented.

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(Physicians desiring reprints should write to the authors at 801 N. E. 13th Street, Oklahoma City.)

RECENT PUBLICATIONS FROM THE MEDICAL CENTER

The Editors of the section present this outline of the work accomplished, but find it impossible to separate the Medical School, the VA Hospital and often the Research Foundation. We are glad that this is so, for it shows the degree to which the work at the Medical Center is cooperative.

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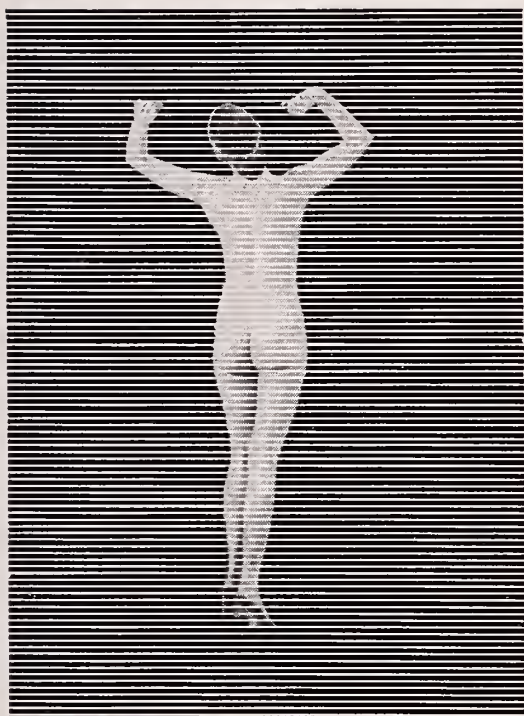
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Physicians desiring reprints should write to the authors at 801 N.E. 13th Street, Oklahoma City.

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SEARLE

PRESIDENT'S LETTER



These are days of change. We are living in a period of fast moving scientific advancement. These changes are vitally affecting the practice of medicine. They are vividly shown in our more direct and scientific approach to diagnosis. They are made manifest in the use of elaborate and complicated mechanical and electrical equipment in therapy. They are really called to our attention in the various phases of the study of disease in the field of research.

With these rapid changes in the scientific and professional aspects of the practice of medicine the socio-economic features have lagged sadly behind. It has been said "we are at least fifty years behind in our administration of economics in our practice."

I realize that Voluntary Health Insurance, both private and Blue Shield types, have made remarkable strides. But, they are merely scratching the surface of the problem.

The public, organized labor, and social planners are becoming more and more restless. They have looked to the medical profession for guidance in affairs medical, and they can't understand why the profession has not developed plans for meeting the cost of illness.

As I view the situation, organized medicine must quickly come forth with answers to three aspects of the problem.

a) More complete and comprehensive coverage, both in the fields of diagnosis and therapy.

b) Develop both means and methods to provide adequate coverage of the people not now protected by Health Insurance.

c) Design and promote "open panel plans" to oppose the so called "closed panel plans."

Should organized medicine not meet these problems, they are naturally allowing or inviting outsiders to enter the situation. These people may arrive at some solution that could very drastically change the practice of medicine as we have known it.

John Fleck Burton, M.D.
President

Following Pages . . .

ANNUAL
MEETING
PREVIEW

Officers and Councilors

Oklahoma State Medical Association



John F. Burton, M.D.
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E. C. Mohler, M.D.
Ponca City
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Johnny A. Blue, M.D.
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General Information about Your Meeting

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F. W. Coggins, M.D.

ENTERTAINMENT COMMITTEE

James B. Eskridge, M.D., *Chairman*

Ira Pollack, M.D.

M. T. Buxton, M.D.

SCIENTIFIC EXHIBITS

S. Fulton Tompkins, M.D., *Chairman*

Arthur F. Elliott, M.D.

HOTEL ACCOMODATIONS

There will be no headquarters hotel for the Annual Meeting. This year, physicians are asked to make their reservations direct with the hotel of their choice. The Skirvin and the Biltmore are considered to be Oklahoma City's finest. Indicate that you are attending the Annual Meeting when requesting reservations.

REGISTRATION

Registration will open Monday, May 5, in the Zebra Room of the Municipal Auditorium at 8:00 a.m. Delegates may register, both for the House of Delegates and the General Meeting, in advance on Sunday, May 4, in the Hall of Mirrors of the Municipal Auditorium, beginning at 9:30 a.m.

TECHNICAL EXHIBITS

Fifty-five outstanding technical exhibits will be on display in the Zebra Room, Monday and Tuesday from 8:30 a.m. to 5:00 p.m. and Wednesday from 8:30 a.m. until noon. Physicians are urged to visit each booth.



HOUSE OF DELEGATES

The House of Delegates will meet on Sunday, May 4, at 10:30 a.m. in the Hall of Mirrors, Mezzanine, Municipal Auditorium. The session will adjourn in the early afternoon and reconvene at 7:30 p.m. Elevators are located at the north end of the Auditorium lobby.



HOBBY SHOW

The Physicians Hobby Show, sponsored by the Woman's Auxiliary, will be held in the Zebra Room. This show will feature the handicrafts of Oklahoma physicians, and will display a great variety of their hobbies.



ROUNDTABLE LUNCHEONS

Roundtable Luncheons will be held on Monday and Tuesday from 12:15 to 1:15 p.m. in the Hall of Mirrors, Municipal Auditorium. Guest speakers of the preceding morning program will be the participants. Tickets are necessarily limited in number and should be purchased at the registration desk upon registering for the meeting.

BLUE SHIELD DINNER

On Monday evening, May 5, the Blue Cross-Blue Shield Plan will entertain physicians and their wives at a buffet to be held at the Lake View Country Club, 6:30 p.m. to 8:30 p.m. Complimentary tickets will be available at the registration desk in the Zebra Room.



PAST PRESIDENT'S BREAKFAST

The Annual Past President's Breakfast will be held Monday morning, May 5 in the Monterey Room of the Skirvin Hotel at 8:00 a.m. The Blue Shield Plan will again sponsor this event.



SCIENTIFIC SESSIONS

All Scientific Sessions will meet in the Zebra Room of the Municipal Auditorium, 8:40 to 4:50 on Monday and Tuesday and from 8:40 until 11:40 on Wednesday.



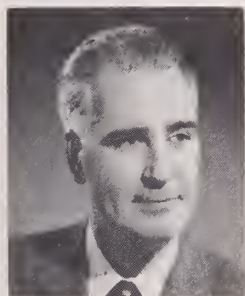
SCIENTIFIC EXHIBITS

Thirty Scientific and Organizational Exhibits will be located in the Zebra Room of the Municipal Auditorium and will be open Monday and Tuesday from 8:30 a.m. to 5:00 p.m. and on Wednesday from 8:30 a.m. until noon. An excellent group of exhibits is being offered this year and you are urged to visit them.

Scientific Program

Distinguished Guest Speakers

KENNETH C. JOHNSTON, M.D.
Chicago, Illinois



Clinical Associate Professor of Bronchoesophagology, Department of Bronchoesophagology, University of Illinois College of Medicine. Attending bronchoesophagologist, Children's Memorial Hospital, Chicago. Attending Bronchologist, Chicago State TB Sanitarium. Medical Degree, University of Manitoba, 1935. Certified, American Board of Otolaryngology. Member, American Academy of Ophthalmology and Otolaryngology and American College of Chest Physicians.

Sponsors: Dick Lowry, M.D., Oklahoma City and Robert Loughmiller, M.D., Oklahoma City.

J. ARNOLD BARGEN, M.D.
Rochester, Minnesota



Chairman of the Department of Gastroenterology, Mayo Clinic, Rochester, Minnesota. Professor of Medicine, Mayo Foundation, University of Minnesota, Minneapolis. Medical Degree, Rush Medical College, Chicago, 1922. Certified by the American Board of Internal Medicine. Member, American Gastro-Enterological Association and American College of Physicians.

Sponsors: Virgil R. Forester, M.D., Oklahoma City and Harry Daniels, M.D., Oklahoma City.

ALVIN J. INGRAM, M.D.
Memphis, Tennessee



Assistant Professor of Orthopedic Surgery, University of Tennessee College of Medicine. Staff Member, Campbell Clinic, Memphis. Medical Degree, University of Tennessee, 1939. Certified by the American Board of Orthopaedic Surgery. Member, American Academy of Orthopaedic Surgeons, American Orthopaedic Association, Central Orthopaedic Club, Clinical Orthopaedic Society and American College of Surgeons.

Sponsors: James Amspacher, M.D., Oklahoma City and Charles Rountree, M.D., Oklahoma City.

JOHN H. GITHENS, M.D.
Denver, Colorado



Associate Professor, Department of Pediatrics, University of Colorado Medical Center. Physician-in-charge, General Medical Clinic, Denver General Hospital. Medical Degree, Temple University Medical School, 1945. Certified, American Board of Pediatrics. Member, American Academy of Pediatrics, Rocky Mountain Pediatric Society, Research and American Federation for Clinical Research.

Sponsors: T. Pfundt, M.D., Oklahoma City and H. V. L. Sapper, M.D., Oklahoma City.

EDGAR J. POTH, M.D.
Galveston, Texas



Professor of Surgery, Director of Surgical Research Laboratory, University of Texas Medical Branch. National Consultant, Office of the Surgeon General, U. S. A. F. Medical Degree, Johns Hopkins University School of Medicine, 1931. Certified, American Board of Surgery. Member, American Surgical Association and Society of University Surgeons.

Sponsors: John Ingle, M.D., Oklahoma City and Ira Pollock, M.D., Oklahoma City.

LOUIS A. SOLOFF, M.D.
Philadelphia, Pennsylvania

Professor of Clinical Medicine and Head of the Division of Cardiology, Temple University Medical Center, Philadelphia. Medical Degree, University of Chicago, 1931. Certified, American Board of Internal Medicine. Member, American College of Physicians.

Sponsors: Louis Charney, M.D., Oklahoma City and David Kraft, M.D., Oklahoma City.

CHARLES W. MAYO, M.D.
Rochester, Minnesota



Professor of Surgery, Mayo Foundation Graduate School. Medical Degree, University of Pennsylvania School of Medicine, 1926. Certified, American Board of Surgery. Member, American College Surgeons, American Surgical Association, Southern Surgical Association, Western Surgical Association, National Medical Advisory Board of the American Legion.

Sponsor: Paul M. Vickers, M.D., Oklahoma City and S. N. Stone, M.D., Oklahoma City.

JOHN E. HOBBS, M.D.
St. Louis, Missouri



Associate Clinical Professor of Obstetrics and Gynecology, Washington University School of Medicine, St. Louis, Missouri. Medical Degree, Washington University, 1927. Certified by the American Board of Obstetrics and Gynecology.

Sponsors: J. W. Records, M.D., Oklahoma City and Gerald Rogers, M.D., Oklahoma City.

EDWIN L. PRIEN, M.D.
Brookline, Massachusetts



Assistant Clinical Professor of Urology, Boston University School of Medicine. Medical Degree, Harvard Medical School, 1929. Certified, American Board of Urology. Member, American Urological Association and the American College of Surgeons.

Sponsors: Don Braham, M.D., Oklahoma City and Jess Miller, M.D., Oklahoma City.

ROBERT D. MORETON, M.D.
Ft. Worth, Texas



Clinical Associate Professor of Radiology, University of Texas, Southwestern Medical School. Medical Degree, University of Tennessee School of Medicine, 1938. Certified, American Board of Radiology. Fel-

low and member of Board of Chancellors, American College of Radiology. Member, Rocky Mountain Radiological Association, Radiological Society of N. A., Roentgen Ray Society for 1949 exhibit.

Sponsors: H. W. Mankin, M.D., Oklahoma City and C. G. Coin, M.D., Oklahoma City.

CHARLES H. BROWN, M.D.
Cleveland, Ohio



Assistant Professor of Gastroenterology, Cleveland Clinic Foundation. Member of Staff, Cleveland Clinic and Cleveland Clinic Hospital. Medical Degree, Rush Medical College, 1938. Certified, American

Board of Internal Medicine. Fellow, American College of Physicians. Member, American Gastro-Enterological Association, American Gastroscopic Club and Association for Study of Liver Diseases.

Sponsors: J. R. Colvert, M.D., Oklahoma City and Turner Bynum, M.D., Oklahoma City.

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COURTESY OF
OKLAHOMA CITY CHAPTER
MEDICAL SERVICE SOCIETY OF AMERICA

Scientific Program

MONDAY, May 5, 1958

MORNING SESSION

John F. Burton, M.D., Presiding

- 8:40- 9:00 COBALT THERAPY
John R. Danstrom, M. D., *Oklahoma City*
- 9:00- 9:40 CLINICAL ASPECTS OF THE KIDNEY STONE PROBLEM
Edwin L. Prien, M.D., *Boston*
- 9:40-10:20 TREATMENT OF ULCERATIVE COLITIS WITH CONSIDERATION OF ASSOCIATED COMPLICATIONS
J. Arnold Bargaen, M.D., *Rochester, Minnesota*
- 10:20-11:00 ENDOMETRIOSIS
John Hobbs, M.D., *St. Louis, Missouri*
- 11:00-11:40 DIVERTICULITIS AND DIVERTICULOSIS
Charles W. Mayo, M.D., *Rochester, Minnesota*
- 11:40-12:15 Visit Exhibits
- 12:15- 1:15 ROUNDTABLE LUNCHEON—Hall of Mirrors, Municipal Auditorium

AFTERNOON SESSION

E. C. Mohler, M.D., Presiding

- 1:30- 2:10 STAGED OPERATIONS AS APPLIED TO THE SURGICAL TREATMENT OF DUODENAL ULCER
Edgar J. Poth, M.D., *Galveston, Texas*
- 2:10- 2:50 BENIGN LESIONS OF THE SMALL INTESTINE
Dr. Bargaen
- 2:50- 3:30 UROLOGICAL PITFALLS IN GENERAL PRACTICE
Dr. Prien
- 3:30- 4:10 LOW ANTERIOR RESECTION FOR CARCINOMA OF THE UPPER PORTION OF RECTUM, THE RECTOSIGMOID AND LOWER PORTION OF SIGMOID
Dr. Mayo
- 4:10- 4:50 THE NERVOUS PATIENT WITH THE NERVOUS STOMACH
Charles H. Brown, M.D., *Cleveland, Ohio*

TUESDAY, *May 6, 1958*

MORNING SESSION

Tom S. Gafford, Jr., M.D., Presiding

- 8:40- 9:00 DICUMAROL PROPHYLAXIS OF THROMBO-EMBOLISM IN SURGICAL PATIENTS
R. M. Shepard, Jr., M. D., H. A. White, M.D., D. L. Garrett, M.D., Tulsa.
Presented by Dr. Shepard.
- 9:00- 9:40 MENOPAUSE—FACTS AND FABLES
Dr. Hobbs
- 9:40-10:20 MEDICAL TREATMENT OF THE “SURGICAL” PEPTIC ULCER
Dr. Brown
- 10:20-11:00 FRACTURES ABOUT THE ELBOW IN CHILDREN
Alvin J. Ingram, M.D., *Memphis, Tennessee*
- 11:00-11:40 THE DUMPING SYNDROME FOLLOWING GASTRIC SURGERY; ITS CONTROL AND TREATMENT
Dr. Poth
- 11:40-12:15 Visit Exhibits
- 12:15- 1:15 ROUNDTABLE LUNCHEON—Hall of Mirrors, Municipal Auditorium

AFTERNOON SESSION

James W. Kelley, M.D., Presiding

- 1:30- 2:10 RADIOLOGICAL CONSIDERATIONS OF UPPER GASTROINTESTINAL TRACT CAUSING BLEEDING
Robert D. Moreton, M.D., *Fort Worth, Texas*
- 2:10- 2:50 DIAGNOSIS OF ESOPHAGEAL DISEASES
Kenneth C. Johnston, M.D., *Chicago, Illinois*
- 2:50- 3:30 PREVENTABLE COMPLICATIONS IN THE TREATMENT OF FRACTURES
Dr. Ingram
- 3:30- 4:10 PERICARDITIS—ITS RECOGNITION AND TREATMENT
Louis A. Soloff, M.D., *Philadelphia, Pennsylvania*
- 4:10- 4:50 MANAGEMENT OF STREPTOCOCCAL INFECTIONS IN CHILDHOOD AND PREVENTION OF THE NON-SUPPURATIVE COMPLICATIONS
John H. Githens, M.D., *Denver, Colorado*

WEDNESDAY, *May 7, 1958*

MORNING SESSION

Irwin H. Brown, M.D., Presiding

- 8:40- 9:00 PRESENT DAY MEDICAL AND SURGICAL TREATMENT IN THE
MANAGEMENT OF PARKINSONISM
B. J. Rutledge, M.D., *Oklahoma City*
- 9:00- 9:40 RADIOLOGICAL PROBLEMS IN EXAMINATION OF COLON WITH EM-
PHASIS ON IMPORTANCE OF EARLY DIAGNOSIS IN NEOPLASTIC
DISEASE
Dr. Moreton
- 9:40-10:20 DIAGNOSIS AND MANAGEMENT OF JAUNDICE IN THE NEWBORN
Dr. Githens
- 10:20-11:00 DISSECTING ANEURYSM—ITS RECOGNITION AND TREATMENT
Dr. Soloff
- 11:00-11:40 EARLY MANAGEMENT OF AUTOMOBILE FRACTURES OF THE
LARYNX
Dr. Johnston

An Invitation From

THE FACULTY HOUSE

The Faculty House extends to members of the Oklahoma State Medical Association, and their wives, a cordial invitation to use its facilities for dinner, meetings, social get-togethers and over-night accommodations during the annual meeting in Oklahoma City, May, 5, 6, 7.

Courtesy cards will be sent to all members before the meeting. See the Faculty House Booth in the Scientific Exhibit Section.

Call RE 6-3767 or Write Mr. Havens for Reservations

Association of
The University of Oklahoma Medical Faculty, Inc.

**601 N.E. 14th Street
Oklahoma City 4, Oklahoma**

OKLAHOMA STATE MEDICAL ASSOCIATION

1958 DELEGATES AND ALTERNATES

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BRYAN	1. Alfred T. Baker, M.D., Durant	LeRoy T. Engles, M.D., Durant
COAL	NO ENTITLEMENT	
BECKHAM	NOT REPORTED	
BLAINE	NOT REPORTED	
CADDO	1. C. B. Sullivan, M.D., Carnegie	M. R. Arthurs, M.D., Hinton
CANADIAN	1. Jack Enos, M.D., Yukon	
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	2. K. L. Wright, M.D., Ardmore	Patrick H. Lawson, M.D., Marietta
LOVE	NO ENTITLEMENT	
MARSHALL	NO ENTITLEMENT	
CHEROKEE	NOT REPORTED	
ADAIR	NO ENTITLEMENT	
CLEVELAND	1. Roy W. Donaghe, M.D., Norman	Charles A. Smith, M.D., Norman
	2. James L. Haddock, M.D., Norman	T. A. Ragan, M.D., Norman
McCLAIN	1. W. G. Long, M.D., Purcell	W. T. Stone, M.D., Purcell
COMANCHE	1. Melton Meek, M.D., Lawton	W. P. Jolly, M.D., Lawton
	2. Robert Dennis, M.D., Lawton	Donald Angus, M.D., Lawton
COTTON	NO ENTITLEMENT	
CRAIG	NOT REPORTED	
OTTAWA	NOT REPORTED	
CREEK	NOT REPORTED	
CUSTER	1. C. B. Cunningham, M.D., Clinton	Floyd Simon, M.D., Clinton
CHOCTAW	NOT REPORTED	
PUSHMATAHA	NO ENTITLEMENT	
EAST CENTRAL		
MUSKOGEE	1. Marvin Elkins, M.D., Muskogee	Wm. M. Wood, M.D., Muskogee
	2. Tom S. Gafford, M.D., Muskogee	W. S. Dandridge, M.D., Muskogee
(At Large)	3. William Doyle, M.D., Muskogee	Gerald Steelman, M.D., Haskell
SEQUOYAH		
WAGONER		
McINTOSH		
GARFIELD	1. George T. Ross, M.D., Enid	Charles J. Roberts, M.D., Enid
	2. A. B. Wight, M.D., Enid	W. J. Buvinger, M.D., Enid
	3. J. W. Williams, M.D., Enid	Fred G. Hudson, M.D., Enid
KINGFISHER	1. Frank C. Lattimore, M.D., Kingfisher	Arthur W. Buswell, M.D., Kingfisher
GARVIN	1. J. A. Graham, M.D., Pauls Valley	R. E. Spence, M.D., Pauls Valley
GRADY	1. S. D. Revere, M.D., Chickasha	B. B. McDougal, M.D., Chickasha
	2. J. J. Swan, M.D., Chickasha	R. D. Shelby, M.D., Chickasha
GRANT	NO ENTITLEMENT	
GREER	1. Tom Wainwright, M.D., Mangum	Fred W. Sellers, M.D., Mangum
HUGHES	1. H. V. Schaff, M.D., Holdenville	Claude Bloss, M.D., Holdenville
SEMINOLE	1. J. D. Woods, M.D., Seminole	C. B. Knight, M.D., Wewoka
JACKSON	1. Wayne Starkey, M.D., Altus	R. S. Srigley, M.D., Altus
JEFFERSON	NOT REPORTED	
KAY	1. L. H. Becker, M.D., Blackwell	R. F. Morgan, M.D., Blackwell
	2. Jack Alexander, M.D., Ponca City	Harold Jones, M.D., Ponca City
NOBLE	1. Charles Martin, M.D., Perry	A. M. Brown, M.D., Perry
KIOWA	NOT REPORTED	
WASHITA	NOT REPORTED	
LeFLORE	1. R. W. Lowrey, M.D., Poteau	E. M. Woodson, M.D., Poteau
HASKELL	NO ENTITLEMENT	
LINCOLN	1. C. W. Robertson, M.D., Chandler	Darrell A. Seelig, M.D., Chandler
LOGAN	1. L. H. Ritzhaupt, M.D., Guthrie	James S. Petty, M.D., Guthrie
McCURTAIN	NOT REPORTED	
NORTHWESTERN		
BEAVER	NO ENTITLEMENT	
DEWEY	NO ENTITLEMENT	

(Continued on Page 230)

Blue Cross-Blue Shield Buffet



LAKE VIEW COUNTRY CLUB

Physicians and their wives are cordially invited to attend a complimentary buffet dinner at the Lake View Country Club, 3601 N. W. 63rd, from 6:30 p.m.—8:30 p.m. on May 5. Sponsored by the Blue Cross-Blue Shield Plans, the event will feature deliciously prepared food by one of Oklahoma City's newest and finest clubs. If you like good food and appreciate an evening of informal congeniality, mark Monday evening on your Annual Meeting calendar now!

For those who wish to attend the "Damm Yankees" musical at the Municipal Auditorium, serving hours at the buffet have been arranged to provide ample time to enjoy dinner and drive downtown before curfew time.

MAY 5

6:30-8:30 p.m.

Tickets will be distributed at the Annual Meeting Registration Desk in the Zebra Room of the Municipal Auditorium all day Monday. The Lake View is located at 3601 N.W. 63rd St.—a map will be printed on the back of your complimentary tickets.

President's Inaugural Dinner-Dance

TUESDAY, MAY 6, 1958

6:15 p.m. SOCIAL HOUR. Balinese and Crystal Rooms, Skirvin Hotel.

7:00 p.m. DINNER and INAUGURAL CEREMONIES. Persian Room, Skirvin Tower Hotel.

9:00 p.m. DANCING to the music of Charlie Spivak. Persian Room.



CHARLIE SPIVAK

Ticket Information

Tickets to the President's Inaugural Dinner-Dance may be purchased in advance by writing to the Oklahoma State Medical Association, Box 9696, Oklahoma City. The price is \$7.00 per person and includes social hour, dinner and dance. Make checks payable to the Association.

Since the ticket sales will be limited to the capacity of the Persian Room, you are urged to order promptly. Tickets remaining after mail orders are filled will be available at the registration desk, Zebra Room, Municipal Auditorium.

Charlie Spivak has had a brilliant career in the music world. In the early part of his rise to popularity, he was associated with such other names as the Dorsey Brothers, Glenn Miller, Bob Crosby and Ray Noble. Later, as a free lance trumpeter in radio he played on the Ford Symphony Hour, Kate Smith and Fred Allen broadcasts. With the encouragement of Glenn Miller he formed his own band and established himself almost immediately as one of the nation's top flight band leaders. He has since been honored by Downbeat Magazine as the top "sweet" band in the country.

"The man who plays the sweetest trumpet in the world" will be the outstanding highlight of the social activities. Featured with him will be song stylists Bobbie Bowman and Paul O'Conner.

Scientific Exhibits

OKLAHOMA STATE MEDICAL ASSISTANTS SOCIETY

Booth 1

"Ten Years of Progress"

The Medical Assistants Society of Oklahoma will exhibit the progress that has been made in the organization's ten years of existence. Details and results of Training and Refresher Courses in the nine participating counties will be displayed, as well as pictorial evidence of county programs, history books, and state meetings. Progress of the project, "Oral History of Medicine in Oklahoma," will also be available.

WILLIAM N. HARSHA, M.D. and SAMUEL T. MOORE, M.D.

Booth 2

"Effects of Trauma upon Epiphysis"

X-ray and other visual devices to show effects of trauma upon epiphysis with emphasis on prevention of growth irregularities.

S. FULTON TOMPKINS, M.D.

Oklahoma City

Booth 3

"Scoliosis"

This exhibit is designed simply to emphasize the importance of early recognition, regular re-examination and diligent treatment of Scoliosis in the growing child. Good results in milder cases can be obtained by non-surgical treatment. Progressive curves require spinal fusion before they become uncorrectable. In severe curves, especially when neglected, an undesirable residual curvature often must be accepted even after fusion.

PAT FITE, JR., M.D.

Muskogee

Booth 4

"Early Autogenous Split-thickness Skin Grafting of Third Degree Burns"

Early autogenous split-thickness skin

grafting of third degree burns is essential to: 1) prevent immediate and delayed systemic complications; 2) prevent late cosmetic and functional complications; 3) facilitate early return to society and job.

Instruments, operative procedures, diagrams and complications are depicted with color photographs.

Actual burn cases are shown from the time of grafting to the completion of healing, including the use of prostheses.

VETERANS ADMINISTRATION HOSPITAL

Department of Physical Medicine and Rehabilitation

Oklahoma City

Booth 5

"Rehabilitation of the Severely Burned Patient"

Photographs, at different stages, of recovery treatment modalities in both physical therapy and occupational therapy will be shown. Patient demonstrations will be presented twice daily.

GILBERT HYROOP, M.D.

Oklahoma City

Booth 6

"Plastic and Hand Surgery"

Display of photographs, pre and post-operative, of various types of cases.

STATE BOARD OF VOCATIONAL EDUCATION

Vocational Rehabilitation Division

Oklahoma City

Booth 7

"Live Exhibit of Employed Handicapped People"

The Vocational Rehabilitation service is the official agency charged with the responsibility for services to employable handicapped people. Services include medical, social and vocational diagnostic work-up; medical

treatment to reduce or eliminate a permanent disability; vocational training of any kind, providing it will enable the individual to earn a living; and placement on a suitable job. This exhibit will include literature and a "live exhibit" of individuals who have been assisted by the service and who are now suitably employed.

CEREBRAL PALSY INSTITUTE

Narmon

Booth 8

"Services of the Institute"

A model of the Hartwell Carrier, as used in our physical therapy department, will be featured. Other services offered at the Cerebral Palsy Institute will be described pictorially.

ARTHRITIS AND RHEUMATISM FOUNDATION

Oklahoma Chapter

Oklahoma City

Booth 9

"Objective Methods for Evaluating Activity in Rheumatoid Arthritis"

This exhibit was prepared for an international meeting in Toronto, Canada, last year. Shown in Oklahoma for the first time, it will cover such subjects as "Correlation between laboratory tests and clinical activity in rheumatoid arthritis," "Criteria for evaluating clinical activity" and "Evaculation of therapeutic response."

OKLAHOMA STATE MEDICAL ASSOCIATION

Civil Defense Committee

Oklahoma City

Booth 10

"The Two Hundred Bed Emergency Mobile Civil Defense Hospital"

The two hundred bed emergency mobile civil defense hospital, loaded in its own van, will be on display outside the Auditorium. The booth will exhibit some of the equipment from the hospital unit, together with descriptive literature, and photographs, and literature on other aspects of Civil Defense.

UNIVERSITY OF OKLAHOMA SCHOOL OF MEDICINE

Department of Physiology

Oklahoma City

Booth 11

"The Physiology Department's Activity in Medical Education and Research"

The exhibit is designed to illustrate the various areas of activity of the department in medical education and research. Selected phases of the teaching program are shown including ward walks, tutorial and didactic sessions for first year students. Examples of the research interests displayed are pulmonary function studies, the Warburg technique, and cerebral electrode implantation.

UNIVERSITY OF OKLAHOMA SCHOOL OF MEDICINE

Department of Anatomy

Oklahoma City

Booth 12

"An Anatomy Department at Mid-Century"

This exhibit is designed to give the viewer a glance into the educational and research activities of the Department of Anatomy at the University of Oklahoma Medical Center.

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

Oklahoma City

Booth 13

"Medical Education"

The University of Oklahoma Medical Center's booth will illustrate: 1) University Hospital's service to counties, 2) Geographical distribution of alumni of the University of Oklahoma School of Medicine, 3) Geographical distribution of current medical students (Home Towns), 4) Post-Graduate activities.

THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION

Oklahoma City

Booth 14

"The Official Publication of the Oklahoma State Medical Association"

The story of your official publication, *"The Journal of the Oklahoma State Med-*

ical Association," will be told in this exhibit; its organization, purpose, history and progress will be graphically portrayed.

ST. ANTHONY'S HOSPITAL Radiology Department
C. G. GOIN, M.D., P. E. RUSSO, M.D., B. E. MULVEY,
M.D., SISTER MARY BEATRICE, R.T., F.A.S.X.T.

Oklohomoo City **Booth 15**

"X-ray Magnification"

This is a collection of radiographs made by direct X-ray magnification exhibiting the usefulness of this technique in the routine practice of radiology, particularly in the diagnosis of difficult fractures and unusual malignancy.

OKLAHOMA ASSOCIATION FOR MENTAL HEALTH
Oklohomoo City **Booth 16**

"The Mentally Ill Can Come Back"

The objectives of the Mental Health Association are portrayed in this exhibit—emphasizing the patient's return to the family and community.

OKLAHOMA ALCOHOLISM ASSOCIATION
Oklohomoo City **Booth 17**

"Disease of Alcoholism"

Posters and literature will be available in reference to the disease of alcoholism; with brochure describing this alcoholism health agency.

OKLAHOMA STATE MEDICAL ASSOCIATION
Insurance Committee
Oklohomoo City **Booth 18**

"Standard Insurance Reporting Form"

A product of your Insurance Committee, the new Standard Insurance Reporting Form will be introduced to you in booth number 18. Designed to simplify your office procedure, the form is meeting wide acceptance from many insurance companies. The exhibit will be staffed by the Transcript Company (printer) whose representatives will be on hand to discuss supply procedure and price.

OKLAHOMA LIONS SIGHT CONSERVATION
FOUNDATION, INC.

Oklohomoo City **Booth 19**

"Oklahoma Eye Bank"

Pictures of persons who have received transplants; instruments for enucleation; transportation kits; and literature on "Eye Bank" will be displayed.

WESLEY HOSPITAL
Department of Otolorynology

Oklohomoo City **Booth 20**

"Stapes Mobilization Operation"

Pictorial display of the Stapes mobilization operation for the restoration of hearing.

UNIVERSITY OF OKLAHOMA SCHOOL OF MEDICINE
Department of Dermatology
H. ALSTON, M.D., D. MINOR, M.D., J. PENROD, M.D.
and M. EVERETT, M.D.

Oklohomoo City **Booth 21**

"Cutaneous Manifestations of Systemic Disease"

Color transparencies of certain skin disorders which are associated with various systemic diseases. Recognition of these cutaneous disorders permits earlier recognition of some malignant and metabolic diseases.

OKLAHOMA STATE MEDICAL ASSOCIATION
Committee on Occupotionol Medicine
Oklohomoo City, Oklohomoo **Booth 22**

"Hazards of Solvents at Home and on the Job"

This exhibit will list a number of commercial solvents along with signs and manifestations of their respective toxic effects. Simple methods of treatment and first aid are outlined in cases where there has been exposure.

D. NELLO BROWN, M.D., MARK R. JOHNSON, M.D.
and ROBERT F. REDMOND, M.D.
Oklohomoo City **Booth 23**

"New Diagnostic Procedures"

A collection of "Midget Exhibits" dem-

onstrating some newer diagnostic procedures.

OKLAHOMA POISON INFORMATION CENTER

Oklahoma City

Booth 24

"Accidental Poisoning"

The exhibit will consist of charts giving the frequency of accidental poisoning as indicated by the number of deaths that have been reported in vital statistics of the United States and Oklahoma. It will also include examples of the substances most frequently involved in accidental poisoning, particularly among children. Pictures of some poisonous plants, the symptoms and recommended treatment will also be covered.

THOMAS C. POINTS, M.D.

Oklahoma City

Booth 25

"A Five Year Study On Birth"

An analysis of 39,668 deliveries in Oklahoma City for a five year period as to hours of day deliveries occur, as well as day of week, month of year and the effect of weather on these deliveries.

AMERICAN CANCER SOCIETY—Oklahoma Division

Oklahoma City

Booth 26

"Cancer of the Cervix"

Designed to promote the use of Exfoliative Cytology in cancer detection, the exhibit illustrates the growth pattern of cancer of the cervix, depicts methods of preparing vaginal smears and graphically presents investigative procedures to be followed.

OKLAHOMA STATE HEART ASSOCIATION

Oklahoma City

Booth 27

"Rheumatic Fever"

This exhibit deals with the recognition and treatment of streptococcal throat infections as related to the cause and prevention of rheumatic fever. Actual culturing of throats of the visitors to the booth will be done with reports of cultures given the

next day. Materials necessary for culturing throats will be shown as well as adequate treatment schedule of streptococcal infections.

UNIVERSITY OF OKLAHOMA SCHOOL OF MEDICINE

Department of Pediatrics

STATE DEPARTMENT OF HEALTH

Oklahoma City

Booth 28

"Perinatal Mortality"

Significant progress has been made in reducing mortality in infants below one year of age. However, there has been relatively little change in death rates for the first month of life. The magnitude, causes and prevention of problems in the perinatal period will be depicted.

OKLAHOMA CITY CLINIC

C. M. BIELSTEIN, M.D., and E. R. MUNNELL, M.D.

Oklahoma City

Booth 29

"Esophageal Atresia of the Newborn"

The three panel display will show the following: 1) Diagnosis—Cardinal features in the diagnosis of this congenital problem. 2) Classification—a working classification which has been found useful in prescribing the management of this anomaly. 3) Surgical management—Present methods of surgical management.

**ASSOCIATION OF THE UNIVERSITY OF OKLAHOMA
MEDICAL FACULTY, INCORPORATED**

Oklahoma City

Booth 30

"Faculty House"

This exhibit will pictorially display the Faculty House which has been established for the faculty and other physicians. The purpose of the organization is to promote the educational, scientific and literary interests of the School of Medicine and to provide a pleasant atmosphere for meetings.

All members of the State Medical Association are invited to stop by booth number 30 and learn more about this newly formed organization.

Technical Exhibits

ABBOTT LABORATORIES

North Chicago, Illinois

Booth 19

You are cordially invited to visit the Abbott booth where Mr. H. B. Fry, Mr. Dan Reardon, Mr. C. C. Weddle, Mr. Bill Wilson, will be happy to answer any questions regarding Abbott products or Abbott Research. Featured will be Harmony-N, a new fast acting tranquilizer-antihypertensive providing the synergistic action of two important drugs: Harmony (Desperidine, Abbott), plus Nembutal. Also featured will be a complete line of hospital fluids and equipment.

A. S. ALOE COMPANY

St. Louis, Missouri

Booth 39

Visit Space 39 where your Aloe representatives, Mr. Bill Jones and Mr. Bill Bennett will be on hand to greet you and discuss items of mutual interest. The display will be a cross section of the Aloe Company's complete line of surgical and laboratory supplies and equipment. Our representatives will appreciate your dropping by to see them.

AUDIO-DIGEST FOUNDATION

Glendale, California

Booth 25

Audio-Digest Foundation—a subsidiary of the California Medical Association—gives the busy physician an effortless tour through the best current medical literature each week. This medical tape-recorded "newscast"—compiled and reviewed by a professional Board of Editors—may be heard in the physician's automobile, home or office. The Foundation also offers medical lectures by nationally-recognized authorities. Representative will be Mr. Charles C. Moore.

BELTONE HEARING SERVICE

Oklahoma City, Oklahoma

Booth 17

The Beltone Hearing Service will exhibit the latest equipment in audiometers, both

for the GP and the ENT specialist. The latest in hearing aids, including the Hearing glasses, will also be on display.

This booth will be staffed by our clinical audiologist, Mr. Millier, and Mrs. Walter L. Metcalfe.

BLUE CROSS and BLUE SHIELD PLANS

Tulsa, Oklahoma

Booth 31

The Blue Cross-Blue Shield exhibit will be a "rest haven" for physicians in between meetings. Information and explanation of any phase of the Oklahoma program will be cheerfully given. Comments, suggestions and questions of physician visitors are always welcome. Mr. Carl E. Behle, Director of Professional Relations, will be in charge of the exhibit.

BURT'S BUSINESS MACHINES CO. (STENORETTE)

Oklahoma City, Oklahoma

Booth 37

"The Typewriter Wired For Sound" has been one of the fascinating innovations at the recent office machine shows. Because the Medical Profession is always interested in advances along scientific lines in all fields, we are displaying this DeJur Triumph Typewriter and its companion piece, the DeJur Stenorette Dictation Machine. Our company, one of Oklahoma's independent enterprises, is built around the slogan, "Your Time is Our Business," which is the keynote of our efforts. Representatives will be Bill Burt, Bob Bloom, Tom Davis, Carolyn Hay, Bill Burt, Jr., and Kenneth Gee.

CARNATION COMPANY

Los Angeles, California

Booth 56

The Carnation Company welcomes friends of long standing as well as new members of the Oklahoma State Medical Association. At booth 56, a refreshing drink of Carnation Instant Nonfat Milk will be served. Carnation representatives will be pleased

to discuss physician-researched material for use in your practice, as a service of the Carnation Company.

CIBA PHARMACEUTICAL PRODUCTS, INC.

Summit, New Jersey

Booth 45

CIBA is featuring two prescription specialties, DORIDEN, a nonbarbiturate hypnotic-sedative and PYRIBENZAMINE LONTABS, a totally new concept in long-acting antihistamines. DORIDEN is being widely used as a safe barbiturate replacement and is nonhabit forming. PYRIBENZAMINE LONTABS provide speedy and sustained antiallergic action up to twelve hours. The tablet is not delayed action, not repeat action, but sustained antiallergic action.

COCA-COLA COMPANY

New York, New York

Booth 22

Ice-cold Coca-Cola served through the courtesy and cooperation of the Oklahoma Coca-Cola Bottling Company, Oklahoma City, Oklahoma and The Coca-Cola Company.

CONNIE'S PRESCRIPTION SHOP

Oklahoma City, Oklahoma

Booth 59

C. J. "Connie" Masterson, H. G. Archerd, and Mrs. Maurice Barr will represent Connie's Prescription Shop.

We shall have a professional exhibit which will be of interest to the allied professional groups.

CREDIT SERVICE

Oklahoma City, Oklahoma

Booth 42

Credit Service, with 23 years experience, is the Oklahoma City member of the National Association of Medical and Dental Bureaus, an organization designed to study the credit problems of the medical profession throughout the nation. The personnel at this booth are men of experience in collection problems and will be glad to discuss any problems relative to the collection of delinquent accounts. 2100 bonded members of the American Collectors Association are eminently qualified to represent you

throughout the United States, Canada, Alaska, Hawaii, and Mexico. Representatives: Robert R. Sesline, Robert F. Hughes, Pete Delise and Tom Hall.

DICTAPHONE CORPORATION

New York, New York

Booth 27

For the medical profession, Dictaphone Corporation presents three systems of efficient communication. For the busy doctor and office nurse-team, the Time-Master System offers complete, personal dictating facilities. The system features the plastic Dictabelt record and various models offer telephone recording, conference recording and dictation by Remote Power Control. Additionally, the Dictet System offers portable voice recording facilities. The three pound recorder is battery-powered, takes a full hour's recording and is the size of a small movie camera. The Dictet Typer provides in-the-office transcribing facilities.

For hospitals, the Telecord System provides network dictation facilities at any number of widely separated stations with recording and transcription centralized for complete, accurate medical records.

DOHO CHEMICAL CORPORATION

New York, New York

Booth 60

DOHO CHEMICAL CORPORATION is pleased to exhibit: AURALGAN, Ear medication in Otitis Media and removal of Cerumen; OTOSMOSAN, Effective, non-toxic Fungicidal and Bactericidal (gram negative-gram positive) in the suppurative and aural dermatomycotic ears; RHINALGAN, Nasal decongestant free from systemic or circulatory effect and equally safe to use on infants as well as the aged; and NEW LARYLGAN, Soothing throat spray and gargle for infectious and non-infectious sore throat involvements.

Mallon Chemical Corporation, Subsidiary of the Doho Chemical Corporation, is also featuring: RECTALGAN, Liquid topical anesthesia, for relief of pain and discomfort in hemorrhoids, pruritus and perineal suturing and DERMOPLAST, Aerosol freon propellant spray for fast relief of surface pain, itching, burns, and abrasions. Also Obs. & Gyn. use.

EAGLE UNIFORM MANUFACTURING CO.

Oklahoma City, Oklahoma

Booth 10

The Eagle Uniform Manufacturing Company, home owned and home operated, is located in Oklahoma City. Specializing in professional apparel styled for comfort, economy, and that "professional look," all Eagle uniforms and professional garments are made from a select range of durable, top quality cotton fabrics in white and a variety of suitable colors. Superior quality workmanship and the exclusive use of Sanforized or Pre-Shrunk materials assures you of proper fit. There's an Eagle Brand professional garment styled to meet every uniform need—jackets, coats, gowns—for men and women. Individual measurements kept on file to facilitate re-ordering. Representatives: R. F. J. Williams, Jr., President; Howard R. Wallis, Manager, Mrs. Howard R. Wallis and Mrs. Nada Harris.

EATON LABORATORIES

Norwich, New York

Booth 26

New chemotherapeutic nitrofurantoin for bacterial diarrheas and enteritis, Furoxone[®] (brand of furazolidone) tablets and liquid. Perorally effective against a wide range of enteric bacteria, both gram-negative and gram-positive, including many species of *Salmonella*, *Shigella*, *Escherichia*, *Proteus*, *Streptococcus*, *Staphylococcus* and organisms classed as coliforms and enterococci.

A new recourse for severe bacterial infections—even when other antimicrobials fail—Furadantin[®] Intravenous Solution often rapidly effective in systemic infections such as septicemia (bacteremia), peritonitis, and other bacterial infections as of postoperative wounds and abscesses, when the organism is susceptible to Furadantin; in severe genito-urinary tract infections when the patient is unable to take Furadantin by mouth.

ELECTRONIC BUSINESS MACHINE CO.

Oklahoma City, Oklahoma

Booth 32

INSTANT ELECTRIC BILLING is now in use in over 200 Oklahoma doctors' offices. Key to the system is the THERMO-

FAX "Secretary" Copying Machine. Priced at only \$299, it makes 250 pre-addressed, itemized statements in an hour. It does away with the month-end confusion of getting out statements, doing days of billing in hours. Because your statement arrives on time it is more likely to be paid in time. More harmony will be immediately apparent when your office switches to Instant Electric Billing, irritating phone calls and letters from patients wanting itemized bills will be a thing of the past. The following representatives will staff our exhibit: R. K. Black, Pat White, R. C. Anderson, Ed L. Kostka, W. W. Wagner, Lorraine Black and Pat Pattillo.

EMERSON'S LABORATORIES PHARMACEUTICAL SPECIALTIES

Dallas, Texas

Booth 18

Prescription Specialties, distributed only through the Medical Profession. Featuring TUR-BI-KAL Nasal Drops and Sympalta.

Mr. Les Lowery and Mr. Charles A. Emerson, Jr., will be at the booth at all times to answer your questions.

GENERAL ELECTRIC COMPANY

Oklahoma City, Oklahoma

Booth 38

General Electric X-Ray will have on display, the new Model GE "90" Mobile X-Ray Unit; GE Inductotherm, Type 3; DWB Cardioscribe; Truvision Illuminators; Molded Rubber Cassettes and many other new accessory items. We wish to extend a most cordial invitation to all our old friends, as well as all new members of the Association to stop by and pay us a visit. The following representatives will staff our exhibit: C. A. Bohan, Manager, J. O. Jones, G. L. Shirk, V. R. Tropp and E. R. Rector.

GREB X-RAY COMPANY

Oklahoma City, Oklahoma

Booth 15

The Greb X-Ray Company has offered sales and service of medical-electrical devices of all descriptions to the profession for over twenty-five years in Kansas and Missouri, and for nearly ten years in Oklahoma. Our major representations include the Picker X-Ray Corporation, the Sanborn Company, and the Liebel-Flarsheim Com-

pany. Offices are maintained in both Oklahoma City and Tulsa with a secondary service point in Muskogee. Our entire operation stresses the services necessary to render adequate installation of electro-medical devices from conception through architecture to the completed facility extends on into the total maintenance thereafter.

J. E. HANGER, INC.

St. Louis, Missouri

Booth 40

The Oklahoma City branch of the oldest and largest Prosthetic Facility in the United States will show the latest developments in Prosthetic Appliances for upper, lower extremity amputees.

The booth will be manned by F. L. Lake, CPO., G. F. Johnson, CP., and Herman Ellis, technician.

R. P. KINCHELOE COMPANY

Dallas, Texas

Booth 9

Information on Keleket and Continental X-Ray Apparatus, Cambridge Electrocardiographs and Liebel-Flarsheim physical medicine and BMR equipment will be available. The R. P. Kincheloe Company has specialized in electro-medical sales in the Southwest since 1919 and is renowned for its expert technical service.

Mr. H. W. Burkhart, Oklahoma Manager, will be in charge of the exhibit.

ELI LILLY AND COMPANY

Indianapolis, Indiana

Booth 30

You are ordially invited to visit the Lilly exhibit located in space number 30. The Lilly sales people welcome your questions about Lilly products and recent therapeutic developments.

The following Lilly salesmen and district manager will be in attendance at our exhibit during the meeting: Mr. Montell Watson (in charge of exhibit), Mr. E. E. Brown, Mr. C. M. Braselton, and Mr. E. W. Griffith.

J. P. LIPPINCOTT COMPANY

Philadelphia, Pennsylvania

Booth 50

Lippincott Books end the quest for the BEST—They are opened with Expectation

and closed with profit. Mr. John L. Rosecrants will be in charge of the Lippincott display.

J. A. MAJORS COMPANY

Dallas, Texas

Booth 14

The latest books of W. B. Saunders Company will be on display for your examination: 1958 Current Therapy; Andresen-Office Gastroenterology; Higgins and Orr-General Surgery; Levine-Clinical Heart Disease and many others. Mr. Bruce Thompson in charge.

S. E. MASSENGILL COMPANY

Kansas City, Missouri

Booth 21

Best wishes from Massengill to the members of The Oklahoma State Medical Association for a most successful and informative meeting. Should you so desire, capable Massengill representatives would be pleased to discuss with you any Massengill products in which you are interested. Products being featured are: Adrenosen (the unique synthetic hemostat); Homagenets (the only solid homogenized vitamins); Obedrin (superior weight reducing aid); The Salcort Family (offering a complete range in arthritic therapy); Saferon (the peptonized iron); Massengill Powder (the douche preparation of choice). If you wish them, literature and samples will be available. Mr. J. L. Hedges and Mr. R. N. Ross will represent the company.

MEAD JOHNSON & COMPANY

Evansville, Indiana

Booth 58

The Mead Johnson exhibit has been arranged to give you the optimum in quick service and complete product information. To make your visit to the booth productive, specially trained representatives will be on hand to tell you about:

MEAD JOHNSON FORMULA PRODUCTS FAMILY, which features Lactum, Olac, Dextri-Maltose, Sobee, Nutramigen and Prohana. All are easy to prescribe, easy to prepare, conveniently packaged and readily available.

The COLACE PRODUCTS FAMILY, for the management of constipation in all your

patients. Peri-Colace softens stools and stimulates peristalsis when bowel motility is inadequate. Colace softens stools without laxative action when bowel motility is inadequate.

TEMPRA, The first physician-controlled antipyretic analgesic in two liquid dosage forms. Temptra is available on Rx only. It comes in wild-cherry-flavored drops and mint-flavored syrup.

SUSTAGEN, the only single food complete in all essential nutrients. It provides every nutrient that medical surgery or poorly nourished patients need for nutritional maintenance and rehabilitation.

MEDCO PRODUCTS COMPANY

Tulsa, Oklahoma

Booth 52

Presenting the **MEDCO-SONLATOR**. Providing a new concept in therapy by combining muscle stimulation and ultra sound simultaneously through a Single Three-Way Sound Applicator.

The **MEDCO-SONLATOR** is a distinct advance in the effectiveness of physical therapy in your office or hospital. A few minutes spent in our booth should prove of value to your practice. Mr. Ellison Harvey will be in charge of the exhibit.

MELTON COMPANY, INC.

Oklahoma City, Oklahoma

Booth 20

Melton Co., Inc. and Melton-Myers, Inc. for the first time will introduce to the Doctors of Oklahoma "The Baroness." Be sure to see "Her" along with the Burdick Ultrasound, Ritter Universal 2-A-1 all purpose Electric Table and many more new items, with all the new Aerosal Treatment items.

Come by and see: Tom Brennan, Joe Snider, Bill Hughes, J. B. Dixon, Roy Cody, Fred Schrandt, Bob Andrews and Charlie Eisenschmidt.

MERKEL X-RAY COMPANY MID-CONTINENT SURGICAL SUPPLY CO.

Tulsa, Oklahoma

Booth 23

We cordially invite your attention and inspection of the "latest" in X-Ray Units,

designed for limited office space. Also, the "latest" Units in Electrocardiographic, Ultra Sonic and Diathermy Equipments.

Our booth will be staffed by the following: Mr. Fred Merkel, Mr. Howard Childers, Mr. Norman Kulsrud, Mr. Bill Terbush, Mr. Fred Cozart, Mr. Freeman Kirbey, Mr. Chas. Smith, and Mr. Louis Rieves.

MERRILL LYNCH, PIERCE, FENNER & SMITH

Oklahoma City

Booth 34

The Merrill Lynch, Pierce, Fenner & Smith booth will feature a display of some basic guideposts for investors. This consists of charts in plexiglass tracing growth of American business by a series of electric relay switches, showing a red line from 1900 to date, and a blue line showing projected growth to 1965. Also we will have a display explaining how to go about investing in American business on the Monthly Investment Plan.

Booklets on investing will be distributed and our booth will be manned by Account Executives Paul Hufnagel, Russell Pace, and Bill L. Wise, who will be available for investment help.

THE MID-WEST SURGICAL SUPPLY COMPANY, INC.

Oklahoma City, Oklahoma

Booth 46

We wish to welcome all members and visitors to their 52nd Annual Meeting; also, to welcome you to booth No. 46 where many interesting items will be displayed.

Names of staff who will attend are: Kermit Howell, Clint Jennings, Hank Byler and Harvey Vorse.

V. MUELLER & COMPANY

Dallas, Texas

Booth 35

You are cordially invited to come by our booth and inspect the latest instruments which have been developed in the past year, along with the old standbys of many years.

Porter Marr and Ford Dixon will be in attendance.

THE NATIONAL CASH REGISTER CO.

Oklahoma City, Oklahoma

Booth 54

The National Cash Register Company will have on display in their booth modern office equipment especially designed for doctors. The machines are devised to provide control and to save time on accounts receivable and accounts payable applications. The names of representatives who will staff the exhibit are listed as follows:

R. G. Carrington, H. E. Tyson, Jr., J. E. Porter, R. A. Dill, Jim Palmer, and Bill Smith.

OKLAHOMA CITY FEDERAL SAVINGS & LOAN ASSOCIATION

Oklahoma City, Oklahoma

Booth 61

Oklahoma City Federal, Oklahoma City's first Savings and Loan, cordially invites you to visit booth No. 61 during the Oklahoma State Medical Association meeting. Russell Miller and W. B. Coyne, officers in charge will be glad to discuss insured savings and investments with you. Descriptive and informative literature will be available.

OKLAHOMA PHYSICIANS SUPPLY, INC.

Oklahoma City, Oklahoma

Booth 7

The Oklahoma Physicians Supply will display in its booth at the Oklahoma State Medical Association's Annual Meeting many of the routine items used in the physicians office.

ORTHO PHARMACEUTICAL CORPORATION

Raritan, New Jersey

Booth 6

ORTHO cordially invites you to booth No. 6 where our line of obstetrical and gynecological pharmaceuticals will be on display. Featured will be DELFEN Vaginal Cream, ORTHO's most spermicidal contraceptive and RARICAL Iron-Calcium Tablets, an effective iron-calcium compound for use in iron deficiency anemias and in all cases requiring calcium supplementation. RARICAL Iron-Calcium with Vitamins Tablets, a complete prenatal supplement, will also be on display. ORTHO representatives: Mr. Noble Birkett, Mr. Fred Hendricks, Mr. W. J. McDonald, and Mr. John W. Waters will be happy to meet you and answer any questions you may have on ORTHO products.

PARKE, DAVIS & COMPANY

Detroit, Michigan

Booth 8

Medical service members of our staff will be in attendance at our exhibit to discuss important Parke-Davis specialties which will be on display. Mr. D. L. Porter will be in charge of the exhibit assisted by Mr. L. R. Mays and Mr. Burt Walkup.

R. J. REYNOLDS TOBACCO COMPANY

Winston-Salem, North Carolina

Booth 53

Welcome to the R. J. Reynolds Tobacco Company Exhibit! You are cordially invited to receive a cigarette case (monogrammed with you initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM or CAVALIER King Size Cigarettes. Mr. L. W. Vaught and Mr. J. W. White will be in attendance.

THE RHINOPTO COMPANY

Dallas, Texas

Booth 55

The Rhinopto Company cordially invites physicians to visit it's booth. Featured will be Rhinall Nose Drops and Spray, a time-proven, safe nasal decongestant for infants, children and adults: and Rhinall Cough Syrup for effective cough control.

Exhibit staff: Mr. Arja H. Evans, Dallas, Texas and Mr. John T. Arrington, Tulsa, Oklahoma.

A. H. ROBINS COMPANY, INC.

Richmond, Virginia

Booth 49

DIMETANE and ROBAXIN are the two new drugs featured at the A. H. Robins Company exhibit. DIMETANE, an antihistamine unexcelled by any other antihistamine in potency, therapeutic index and relative safety, is offered in 4 mg. Tablet form, an exceptionally palatable Elixir, and in Extentabs which provide 10-12 hours of allergy control with one dose. ROBAXIN tablets are gaining acceptance as the skeletal muscle relaxant of choice as clinical evidence accumulates on this significant new product of Robins research. Also shown are ALLBEE with C, AMBAR, and DONNATAL PLUS. Representatives: Mr. Ellsworth Draper, Mr. C. O. Patton, Mr. C. D. Wheeler, Jr.

J. B. ROERIG AND COMPANY

New York, New York

Booth 16

J. B. ROERIG AND COMPANY, booth No. 16, will feature ATARAX, the new "Peace of Mind" drug. It's an all new chemical and is specially indicated for the "more normal" person, to bring relief from the common everyday tensions and anxieties. Co-featured ATARAX will be BONADOXIN, the anti-emetic for relief of the nausea and vomiting of pregnancy; also effective in post-anesthetic nausea and postradiation sickness. Literature and samples are available to physicians at the booth which you and your friends are cordially invited to visit.

LESTER J. SABOLICH

Oklahoma City, Oklahoma

Booth 33

All Types artificial Limbs and Orthopedic Appliances. Representatives are Lester J. Sabolich, B. Ray Buddin, Lloyd T. Keller and Ella Brinson.

SANDOZ PHARMACEUTICALS

Hanover, New Jersey

Booth 41

Sandoz Pharmaceuticals cordially invites you to visit our display at booth No. 41.

BELLERGA Space Tabs. assures around the clock control of functional complaints, such as, menopause symptoms in the periphery where they originate.

SANDOSTENE Space Tabs. around the clock control of itching and hay fever.

BEPHAN Space Tabs. new approach to prolonged maintenance of low gastric acidity. Our representative, Mr. Garland D. Ward, will gladly answer questions about these and other Sandoz products.

SCHERING CORPORATION

Bloomfield, New Jersey

Booth 48

The Schering exhibit will feature TRILAFON, extremely potent tranquilizer and anti-emetic, capable of alleviating manifestations of emotional stress without apparent dulling of mental acuity.

Extraordinary potency in behavioral effects without corresponding increase in autonomic hematologic or hepatic side effects pro-

vides a favorable therapeutic ratio and excellent versatility in clinical use. The following Schering representatives will be in attendance at our exhibit: Howard James and Harold Cooper.

SEALY SOUTHWEST

Ft. Worth, Texas

Booth 44

A new version of America's leading orthopedic type bedding will be exhibited by Sealy in Space 44.

This orthopedic type bedding is an improved version of Sealy's famous **Posturepedic**, which was designed in 1948 in cooperation with a group of Orthopedic Surgeons.

The Sealy **Posturepedic Exhibit** will demonstrate how doctors may use this orthopedic type bedding to aid their patients requiring the proper amount of firm support during hours of sleep. Mr. Neil Barton will be in attendance.

G. D. SEARLE & COMPANY

Chicago, Illinois

Booth 43

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Featured will be Enovid, the new synthetic steroid for treatment of various menstrual disorders; Zanchol, a new biliary abstergent; Nilevar, the new anabolic agent, and Rolicton, a new safe, non-mercurial oral diuretic.

Also featured, will be Vallestrik, the new synthetic estrogen with extremely low incidence of side reactions; Pro-Banthine, the standard in anti-cholinergic therapy; and Dramamine, for the prevention and treatment of motion sickness and other nauseas.

SEVEN-UP BOTTLING COMPANY

Oklahoma City, Oklahoma

Booth 36

It is a pleasure for the 7-Up Bottlers of Oklahoma to be an exhibitor at your 52nd Annual Meeting, and hope you will stop at booth No. 36 and fresh up with 7-Up as often as you want.

The names of those who will staff our exhibit are: Mrs. Marie Harkins, Mrs. Mary

Crews, Mrs. Eunice Brooks, Mr. James Crittendon, Mr. Harry D. Schroeder, Mr. Harley Ray.

E. R. SQUIBB & SONS

New York, New York

Booth 57

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for prevention and treatment of disease. The results of our diligent research are available to the Medical Profession in new products or improvements in products already marketed. At booth No. 57 we are pleased to present up-to-date information on these advances for your consideration.

ST. PAUL-MERCURY INSURANCE CO.

St. Paul, Minnesota

Booth 28

Professional Liability Insurance Provided by agents of St. Paul Fire and Marine Insurance Company and St. Paul Mercury Insurance Company — the choice of the Oklahoma State Medical Association.

Our Specialists are here to serve you and welcome your inquiries. F. O. Cress, G. L. Fransen, G. D. Gorney, Gordon L. Estes, M. J. Herod, Stanley M. Wall, Roger J. Bainbridge.

S. J. TUTAG & CO. PHARMACEUTICALS

Detroit, Michigan

Booth 51

Recent publications have attested to the advantage and efficacy of the 20 to 1 ratio of androgen to estrogen in the treatment of the ever present "aging" problem.

Geritag formula embodies this very relationship plus a vital range of 9 vitamins, 10 minerals, Rutin and 3 lipotropic agents.

These advantages are available in both the capsule and parenteral form—necessary to forestall progressive decline of physical vigor.

The following will staff our exhibit at this convention: Mr. Stanley J. Tutag, Mr. Richard Teagan, Mr. Haven Black.

U. S. VITAMIN CORPORATION

New York, New York

Booth 29

NEW — on display — ARLIDIN, the safe

vasodilator drug with three unique pharmacologic actions: (1) dilates predominantly small blood vessels of skeletal muscle, (2) increases cardiac output without significant increase in pulse rate, (3) promotes greater circulating blood volume. Thus, ARLIDIN (Nylidrin HCl, NNR) is indicated in treating intermittent claudication in arteriosclerosis obliterans, thromboangiitis obliterans, and diabetic vascular disease; also effective in Raynaud's Syndrome and ischemic ulcers.

Professional samples and literature distributed also on our complete line of nutritional and pharmaceutical specialties. The names of the men who will staff our booth are: Mr. John T. Wilbourn and Mr. E. E. Jones.

UPJOHN COMPANY

Kalamazoo, Michigan

Booth 47

Members of the medical profession are invited to visit the Upjohn booth where Mr. Vance Vandiver, Mr. John Frye, Mr. Jack Mock and Mr. Maxie Walker will be prepared to discuss Upjohn's many fine products.

Featured will be Orinase, Medrol and Panalba.

WARREN-TEED PRODUCTS COMPANY

Columbus, Ohio

Booth 24

The Warren-Teed Products Company is featuring three specialty products at Booth No. 24.

MODANE TABLETS AND LIQUID; a nutritive deconstipant that not only relieves but also rehabilitates the atonic bowel.

CAL-O-B TABLETS; a soluble, assimilable calcium, phosphorus and mineral supplement for use in obstetrics, geriatrics, and orthopedics.

ILOPAN; a new parenteral approach to the treatment of post-operative retention of flatus and feces.

Courteous medical service representatives will welcome all registrants at the Warren-Teed display. Mr. E. F. Stuard, Mr. B. D. Wilder and Mr. A. L. Mallory will staff our exhibit during this meeting.

Woman's Auxiliary



Mrs. Iron H. Nelson
President-Elect
Tulsa



Mrs. John Powers Wolff
President
Oklahoma City



Mrs. Virgil Ray
Forester
Secretary-Treasurer
Oklahoma City



Mrs. Peter MacKercher
First Vice-President
Ponca City



Mrs. Pat Fite, Sr.
Second Vice-President
Muskogee

Convention Chairman
Mrs. Charles W.
Freeman

Health Is A Joint Endeavor

SUNDAY, MAY 4, 1958

3:00 p.m.-5:00 p.m.—REGISTRATION AND INFORMATION. Mezzanine, the Skirvin Hotel.

5:30 p.m.—EXECUTIVE BOARD MEETING AND BUFFET DINNER, 2336 Belleview. Hostesses: Mrs. Virgil Ray Forester and Mrs. John Powers Wolff.

*Everyone is cordially invited to attend all meetings

Health Is A Joint Endeavor

MONDAY, MAY 5, 1958

8:30 a.m.—PAST PRESIDENTS' BREAKFAST, Blue Room, Skirvin Hotel. Hostess: Mrs. Carroll M. Pounders.

9:00 a.m.—REGISTRATION AND INFORMATION, Mezzanine, Skirvin Hotel. Coffee and rolls will be served.

10:00 a.m.—GENERAL MEETING—Ballinese Room, Skirvin Hotel. Mrs. John Powers Wolff, President, Woman's Auxiliary to the Oklahoma State Medical Association, presiding.
CALL TO ORDER: Mrs. Wolff.
INVOCATION: Mrs. E. H. Shuller, McAlester.
PLEDGE OF LOYALTY: Mrs. Richard E. Witt, Muskogee.

GREETING: E. C. Mohler, M.D., President-Elect, Oklahoma State Medical Association.
ROLL CALL BY COUNTIES: Mrs. Virgil R. Forester, Secretary-Treasurer, Woman's Auxiliary to the Oklahoma State Medical Association.

READING AND ADOPTION OF MINUTES: Mrs. Forester.

TREASURER'S REPORT: Mrs. Forester.

INTRODUCTIONS: Guest speaker—Mrs. Arthur E. Underwood, President-Elect Woman's Auxiliary to the American Medical Association, "Liaison, A Golden Thread."

MEMORIAL SERVICE: Mrs. E. Gordon Ferguson.

REPORT OF THE NOMINATING COMMITTEE: Mrs. Iron H. Nelson, President-Elect, Woman's Auxiliary to the Oklahoma State Medical Association.

12:30 p.m.—LUNCHEON, FASHION SHOW, Persian Room, Skirvin Tower, Mrs. Delbert O. Smith, President, Oklahoma County Auxiliary, presiding. Presented by Kerr's, Oklahoma City.

6:30 p.m.-8:30 p.m.—BLUE CROSS-BLUE SHIELD BUFFET DINNER, Lakeview Country Club.

TUESDAY, MAY 6, 1958

9:00 a.m.—REGISTRATION AND INFORMATION, Mezzanine, Skirvin Hotel.

9:00-10:00 a.m.—BREAKFAST, Mezzanine, Skirvin Hotel.

10:00 a.m.—GENERAL MEETING — Balinese Room, Skirvin Hotel. Mrs. John Powers Wolff, Presiding.

CALL TO ORDER: Mrs. Wolff.

PLEDGE OF LOYALTY: Mrs. Harold R. Sanders, Stillwater.

WELCOME: Mrs. George Bozalis, President-Elect, Oklahoma County Auxiliary.

REPORT OF CREDENTIALS COMMITTEE: Mrs. William Ishmael, Mrs. Coye McClure.

GUEST SPEAKER: John F. Burton, M.D., President, Oklahoma State Medical Association.

REPORTS: County Presidents
State Committee Chairmen
Southern Councilor

UNFINISHED BUSINESS.

NEW BUSINESS.

REPORT OF FINANCE AND BUDGET COMMITTEE: Mrs. M. L. Henry, Chairman.

ELECTION OF OFFICERS—ELECTION OF DELEGATES TO THE A.M.A.

ANNOUNCEMENTS.

1:00 p.m.—LUNCHEON — POST CONVENTION SCHOOL OF INSTRUCTION, Crystal Room, Skirvin Hotel. Mrs. Iron H. Nelson, Presiding.

6:15 p.m.—SOCIAL HOUR, Balinese and Crystal Rooms, Skirvin Hotel.

7:00 p.m.—PRESIDENT'S INAUGURAL DANCE—Persian Room, Skirvin Tower—Charlie Spivak and his orchestra.

VISIT THE PHYSICIANS HOBBY SHOW

Zebra Room



Municipal Auditorium



May 5, 6, 7

A PROJECT OF THE AUXILIARY

Flight Plan

Oklahoma State Medical Assistants

10TH ANNUAL CONFERENCE

2-3-4 May, 1958 — "Base HQ." Oklahoma Biltmore Hotel, Oklahoma City

2 MAY (FRIDAY) 1900 HOURS

FLIGHT LINE INSPECTION
(Board Meeting—County Reports)

3 MAY (SATURDAY)

0900 Hours S.O.P.* (Registration)

0930 Hours G.C.A.* (Call to Order)
Hazel Wade, President, OSMAS

0945 Hours FLIGHT RULES
(Parliamentary Procedure Convention Rules)

1000 Hours BASE OPS PROCEDURES
(Officer's Conference)

President's Duties Hazel Wade, Tulsa
1st Vice-President Duties
and Projects Committee Bonnie Glover, Tulsa
2nd Vice-President Duties and
Extension, County Programs Neda Chadsey,
Bartlesville

Secretaries' Duties
Corresponding Kathryn Wyrwick, Tulsa
Recording Gertrude Habiger, Ponca City
Treasurer's Duties Laverne Arnold, McAlester
Budget & Finance Edna Thompson, Ada
Committee Chairmanships:
PR & Publications Bobbie Antrim, Okla. City
Welfare Ellen Jackson, Okla. City
Ruby L. Clark, Bartlesville
Nominations Kathrine Meek, Stillwater
Education Marge Petty, Ada
Revisions Mona Coventon

1130-1300 Hours Meridian Maneuvers (Luncheon)

1300 Hours COUNT DOWN
(Roll Call, Recognition of Counties, Business)

1330 Hours SECURITY INSPECTION
(Recognition of Delegates, Introduction of
Candidates, Business)
(Delegates retire for voting on constitutional changes
and election of officers)

1400 Hours BLAST-OFF!! (Official Welcome)
Mr. Dick Graham, Executive Sec.
Okla State Medical Association

1410 Hours "JATO* All-Weather Intercept"
(Beating the Quacks and Pseudo-Medics)
Mr. Dick Stalvey, Executive Assistant
Department of Public Relations
American Medical Association

1830 Hours DINING-IN (Banquet)
NOW HEAR THIS! (Welcome)

Orange Wellborn, M.D. (Ada, Okla.)
Advisory Board, O.S.M.A.S.

REACHING MACH II* in P.R.
Mr. Leo Brown, Director
Department of Public Relations
American Medical Association
"MAN IN SPACE. CAN HE SURVIVE?"
Burl E. Stone, M.D.
Lawton, Oklahoma

2100 Hours REFUELING/DE-ICING STOPOVER
Hosts: Oklahoma City Chapter of the
Medical Service Society of Oklahoma

2130 Hours SONIC BOOMS! Al Good and his
Orchestra

4 MAY (SUNDAY)

0900 Hours SURVIVAL SCHOOL RATIONS
(Breakfast honoring President—State, County,
Past, Present and Future)

1000 Hours SOUND-OFF via TOP BRASS
E. C. Mohler, M.D., Ponca City,
Pres.-Elect, Oklahoma State Medical Association
SUPERSONIC MEDITATIONS
(or Heavenly Hash!)

Father Elias, Priest, Carmelite Fathers
Hartshorne, Oklahoma

1130 Hours PRECISION FLYING (Scrambling
the Eggs)
Installation of New Officers

1200 Hours OPEN MESS (Luncheon)
Sponsored by
Oklahoma Blue Cross-Blue Shield

1300 Hours CHECKRIDES, DECELERATION & RE-
ENTRY PROBLEMS
(Medical Economics Panel Discussion)

Mr. Carl Behle (Blue Cross Professional Relations
Director)

Judge James Demopolos (Legas Counsel, OSMAS)
Senator George Miskovsky, Oklahoma City

1400 Hours STRATOSPHERE SENDOFF
Marjorie Petty, 1958-59 President, OSMAS
FLIGHT ASSIGNMENTS & DECORATIONS
(Committee Appointments and Awards)

*S.O.P.—Standard Operating Procedure

*G.C.A.—Ground Control Approach

*J.A.T.O.—Jet Assist Take Off

*Mach II—Twice Speed of Sound

VISIT the Medical Assistant Booth at the SCIENTIFIC
EXHIBITS, Municipal Auditorium

Related Meetings

OKLAHOMA CHAPTER AMERICAN ACADEMY OF PEDIATRICS

The Oklahoma Chapter of the American Academy of Pediatrics will meet Sunday, May 4, 1958.

1:00 p.m. — Registration and scientific meeting, Children's Memorial Hospital, Oklahoma City.

5:30 p.m. — Cocktails, Courtesy Mead Johnson Company, Headquarters Oklahoma State Medical Association

7:00 p.m. — Dinner and Business Meeting, Headquarters, Oklahoma State Medical Association.

OKLAHOMA CITY CHAPTER OF THE CATHOLIC PHYSICIANS GUILD

Members of the Oklahoma City Chapter of the Catholic Physicians Guild are invited to attend Mass at Our Lady Cathedral at 8:30 a.m., followed by breakfast, on May 4 at 10:30 a.m. at the Oklahoma City Golf and Country Club. The Most Reverend Victor J. Reed, D.S.T., Bishop of Oklahoma City-Tulsa Diocese will be honored. All Catholic physicians are invited.

OKLAHOMA STATE DIABETES ASSOCIATION

The Oklahoma State Diabetes Association will meet for breakfast, May 6, at 7:45 a.m. in the Regency Room of the Skirvin Hotel, Oklahoma City.

OKLAHOMA STATE SOCIETY OF ANESTHESIOLOGISTS, INC.

The Oklahoma State Society of Anesthesiologists will meet Sunday, May 4, at 10:00 a.m. at Twin Hills Country Club.

Officers who will serve are: William B. Renfrow, M.D. Oklahoma City; Lawrence Stream, M.D., Oklahoma City. Incorporators are: Howard A. Bennett, M.D., Tulsa; Joseph M. White, M.D., Oklahoma City; Carl H. Guild, Jr., M.D., Tulsa; Eugene G. Wolff, M.D., Tulsa.

OKLAHOMA SOCIETY OF NEUROLOGISTS AND PSYCHIATRISTS

The Oklahoma Society of Neurologists and Psychiatrists will meet Sunday, May 4, at the Coyne-Campbell Sanatorium at 3:00 p.m. There will be an election of officers and an invited psychiatrist will present a scientific paper.

OKLAHOMA CITY SURGICAL SOCIETY

The Oklahoma City Surgical Society will hold a dinner meeting Sunday evening, May 4. Charles W. Mayo, M.D., Rochester, Minnesota, will speak on "The Role of Medicine in International Relations". Presentation of a scroll to the outstanding senior student of the University of Oklahoma School of Medicine will be made.

Coming Meetings

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

Postgraduate Instruction*

TRAUMA—April 11 and 12

Sponsored by the Regional Committee on Trauma of the American College of Surgeons

OKLAHOMA ASSOCIATION OF HOUSE STAFF
PHYSICIANS—May 23

Two guest lecturers and presentation of original papers by members of the various House Staffs will highlight this program. Participating hospitals are: Hillcrest Medical Center, Tulsa; St. John's, Tulsa; McBride, Mercy, St. Anthony, University, Veterans Administration and Wesley, Oklahoma City.

*The above courses will be held at the University of Oklahoma School of Medicine. For further information write to the Office of Postgraduate Instruction, 801 NE 13th St., Oklahoma City, Oklahoma.

Postgraduate Division

UNIVERSITY OF OKLAHOMA MEDICAL CENTER SHORT COURSE SERIES

May 14—Pediatrics—Pediatric Allergy.

June 11—Surgery—Surgical Diagnosis and Problem Clinic.

The courses are designed so physicians may attend four hours of formal instruction in the above fields while spending only one-half day from their office. This series is approved for credit by the Oklahoma Academy of General Practice.

Time 3:30 to 8:30 p.m. the second Wednesday of each month.

Place: Room 120, Medical School Building.

Registration: \$3.50 per session; \$25 for the entire series includes dinner, Hospital Cafeteria. Mail registration to office of Postgraduate Instruction.

THE HEART PATIENT COURSE

April 21-May 2 Oklahoma Medical Center
Oklahoma City, Oklahoma

The Heart Patient Course, sponsored by the Oklahoma State Heart Association, Oklahoma State Department of Health, University of Oklahoma Medical Center, and the Oklahoma University Extension Division will be held April 21-May 2 at the Medical Center.

Two hours credit from the University of Oklahoma will be given to each enrollee who successfully completes the course which is particularly designed for physicians, nurses, dieticians, and social workers.

Scholarships for the \$25 tuition fee are available to Oklahoma residents. For further information and application blank, write the Oklahoma State Heart Association, 825 Northeast 13th, Oklahoma City 4, Oklahoma.

NINTH SEMINAR ON THE WORLD HEALTH ORGANIZATION

Minneapolis, Minnesota May 24-June 4, 1958

The Ninth Seminar on the World Health Organization will meet simultaneously with the Eleventh World Health Assembly in Minneapolis from May 26 to June 4, 1958. Speakers for this seminar will be either officials from WHO regional offices or medical researchers qualified to report on the newest developments in their fields.

Applications should be addressed to: Committee on General Arrangements For WFUNA-WHO Seminar on World Health, 2808 West River Road, Minneapolis 6, Minnesota.

AMERICAN GOITER ASSOCIATION

San Francisco, California
June 17, 18, 19, 1958

The 1958 meeting of the American Goiter Association will be held in the St. Francis Hotel, San Francisco, California, June 17, 18 and 19, 1958. The program for the three day meeting will consist of papers and discussions dealing with the physiology and diseases of the thyroid gland.

Hotel reservations must be secured by writing to Goiter Housing Bureau, Room 300, 61 Grove Street, San Francisco, California and be accompanied by a deposit of \$10.00 per room.

(Continued on Page 229)

Medical News

Blue Cross Commission Wins Freedom Foundation Award

A Freedoms Foundation Award for outstanding contribution to Americanism during 1957 has been won by the Blue Cross Commission of the American Hospital Association.

The award, a bronze medal cast in honor of George Washington, was made to the Blue Cross Commission for its program encouraging the use of discussion as a learning and educational tool in the nation's schools. It was announced during ceremonies at Valley Forge on Washington's Birthday, February 22.

Backbone of the Commission's program for schools is in the practical application of discussion as "on old American custom we use every day." Illustrating this for classroom use is a kit containing a series of color charts, a guide to teachers in leading group discussion and a system of evaluating class participation. Kits, along with supplementary educational material, are now being used in thousands of elementary and high schools and universities.

Richard M. Jones, director of the Blue Cross Commission, said, "We feel it is part of the Commission's responsibility to the civic and educational life of our nation to emphasize the freedom we enjoy in exchanging ideas and to help define what that means. Blue Cross is dedicated to the interest of the community and the school program we have initiated is tangible evidence of our community role. The Commission is honored by its selection as a Freedoms Foundation award winner."

Freedoms Foundation of Valley Forge is a nonsectarian, nonprofit organization endowed voluntarily by business, industry, service groups and individual contributions to sponsor an annual program of Americanism awards. This year, the Foundation's impartial 30-man jury selected from community clubs, civic organizations and state

Nursing Institute To Be Held in May

"Legal Aspects of Nursing" and "Geriatrics, A Problem in Nursing" will be discussed on successive days during a nursing institute which will be held in Norman on May 9 and 10. The course will be held at the Short Course Center on the North Campus of the University of Oklahoma and will be open to both nurses and physicians.

Topics for the May 9 session will be "Introduction to Legal Terms and Definitions;" "Legal Status of the Nurse As A Professional Person and As An Individual;" "Legal Aspects of Nurse-Doctor Relationships;" and, "What to Look For in Professional Liability Insurance." Questions and answer periods will be provided to encourage audience participation.

The May 10 program will be comprised of such topics as, "Why Old People Act that Way;" "The Nurse Role in Reactivating the Elderly Patient;" "Facilities Available Now in Oklahoma for Old Folks and What are the Plans for the Future;" and, "Restoration of Self Care."

The Institute is jointly sponsored by the Oklahoma League of Nursing, the Oklahoma Hospital Association, the Oklahoma State Medical Association, the Oklahoma State Nurses Association and the Extension Division of the University of Oklahoma.

A registration fee of \$2.00 will be charged each person who attends. Registration is at 8:00 a.m., May 9 at the Extension Study Center, North Campus, Norman. Meals and housing are available for participants.

supreme courts, had 40,000 entries from which to choose. Nation-wide, there were 700 award winners.

The George Washington Honor Medal will be presented to the Blue Cross Commission at a regional ceremony in Chicago this spring.

metaphosphate produced markedly higher blood levels than capsules containing either the corresponding base or the hydrochloride alone. In addition, the average levels derived from the tetracycline base or the chlortetracycline base were higher than those produced by the corresponding hydrochloride though lower than those resulting from the mixture containing the base and sodium metaphosphate. In the study with chlortetracycline capsules containing a mixture of the hydrochloride and sodium metaphosphate were also included in the crossover, and the average levels produced by these capsules were the same as with the mixture of chlortetracycline base with sodium metaphosphate.

Although the enhancement of blood levels of tetracycline by phosphate, either complexed to the tetracycline or mixed with the base or the hydrochloride, thus seemed fairly well established, some doubts still remained because certain reliable observers (including many whose results have not been published) failed to confirm the findings with the materials and methods they used. Further confusion seemed to be added by a subsequent report of Welch et al.,⁷ who, in repeating a crossover study with capsules of tetracycline phosphate complex and tetracycline hydrochloride with and without sodium metaphosphate, found much higher blood levels with the tetracycline phosphate complex than with the tetracycline hydrochloride.

Dicalcium phosphate and food resulted in lower, and sodium metaphosphate in higher, serum antibacterial activity than was observed in their absence. Oil and sorbitol did not interfere with tetracycline absorption.

Dicalcium phosphate is widely used as a filler in various capsules, including those of the tetracyclines. The authors cite a large number of other studies that implicate the presence of calcium ions as the cause of the reduced absorption of tetracyclines and show that citric acid can partially neutralize this effect. The depressing effect of food on the serum levels of tetracycline is likewise explained by the goodly amount of minerals contained in commercial laboratory diets, and they postulate that the multivalent cations may be responsible for the poorer absorption of the drug. The authors could not explain the failure of citric acid to enhance serum concentrations when administered with tetracycline base in contrast to its marked effect when given as the hydrochloride. However, they hypothesized that the ability of citric acid to enhance serum levels of tetracycline is related to its ability to form complexes with the tetracycline.

“...Tetracycline hydrochloride and citric acid, in an encapsulated mixture, produced higher serum concentrations and greater urinary excretions, and hence better absorption of tetracyclines, than any other preparation studied...”

The experiments in rats⁸ were carried out to study the effects of citric acid, dicalcium phosphate, sodium metaphosphate, food, oil and sorbitol on the serum antibacterial activity produced by the administration of tetracycline hydrochloride or tetracycline base. Citric acid administered in equal weight with tetracycline hydrochloride gave the highest concentrations of all the preparations studied. No enhancing effect was obtained from citric acid when given with tetracycline base.

This, however, fails to explain the most recent findings of Welch and Wright,¹⁰ who compared the absorption of three capsules, each containing 250 mg. of oxytetracycline hydrochloride — one without any adjuvant, one with 250 mg. of citric acid and the third with 380 mg. of sodium hexametaphosphate; no other filler was contained in any of these capsules. In triple

crossover studies, they as-
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found that sodium hexa-
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Editorial.
The New England Journal of Medicine.
258:97-99, (January 9) 1958

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ACHROMYCIN* V

TETRACYCLINE HCl BUFFERED WITH CITRIC ACID

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tetracycline and citric acid



LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK
*Reg. U. S. Pat. Off.

San Diego County Medical Society Members Offer "Free First Visits"

The doctors of San Diego, California, have developed a plan to encourage people to find themselves a regular "family physician." They are distributing cards which entitle the bearer to a "free get-acquainted visit" with a local physician.

Previously, according to the county medical society officers, "too many patients were being charged a fee for the privilege of selecting a physician." The trouble has usually been that the patients failed to make it clear that they only wanted to discuss the possibilities of having the doctor as their family physician. Either the office personnel or the physician misunderstood, so the patient was charged.

The San Diego plan works as follows. When a prospective patient phones the county medical society to ask if it can recommend a physician, the caller is given two or three names—he is also sent a card to introduce him. The cards reminds the doctor: "The San Diego County Medical Society has recommended to the public that every family have a personal physician. Ordinarily, medical fees are not assessed for such an introductory interview UNLESS specific advice and/or treatment is instituted."

The new patient is scheduled at certain hours on the physician's appointment book, perhaps near the close of the day, and a record of name, address, members of the family, ages, etc., is entered in his office files. It is suggested that approximately 15 to 20 minutes should be ample for a "get acquainted" visit.

Physicians Enter Hobby Show

Entering their hobbies in the Annual Physicians Hobby Show are: Bertha Levy, M.D.—oil painting; Brunel Farris, M.D.—oil paintings; Peter Russo, M.D.—oil painting; E. S. Lain, M.D.—oil paintings; Pat Fite, Jr., M.D.—silver and woodcraft; David Shaprio, M.D.—music composition; and Carl Lindstrom, M.D.—oil paintings.

Britain to Boost Health Charges Again

Britain's chancellor of the exchequer announced a few days ago that contributions to the National Health Service by those using it and by employers would be boosted again in July.

The chancellor told the House of Commons that the whole structure of the social services would be imperiled unless their cost to the treasury was kept in bounds.

The chancellor estimated the cost of the health service during the coming fiscal year at \$2,072,000,000.

Fogarty Favors Custodial Care Change in Hill-Burton Law

When it comes time to extend the Hill-Burton hospital construction law, Rep. John Fogarty (D., R.I.), chairman of the important House Appropriations subcommittee on the Department of HEW budget, would like to see it provide for construction of custodial facilities for the aged. Hill-Burton Act expires in June, 1959, but this Congress is expected to extend it. The Rhode Island Congressman also favors enlarging the staffs of HEW and Labor Department that deal with problems of the aged.

These views were expressed during his appearance before a House Education and Labor subcommittee on H.R. 9822. This is Mr. Fogarty's plan for grants to the states to help them sponsor state conferences on the aging, leading up to a White House Conference on Aging. His original idea was that the states would hold their meetings this year and the President would call the national conference before the close of 1958. However, states want more time to plan, and Mr. Fogarty has suggested the White House meeting be held off until the spring of 1960. Other Congressmen appeared in support of bills on the aging, most of which would set up new bureaus or offices in HEW.

What is the Difference Between THE WORLD MEDICAL ASSOCIATION and THE WORLD HEALTH ORGANIZATION?

THE WORLD MEDICAL ASSOCIATION

1. WMA is an organization of national medical associations. The unit of membership is the most representative national medical association in each country. It is completely non-governmental. It is not part of the U. N. It is a voluntary organization.
2. WMA represents the practicing medical profession.
3. WMA was organized in 1947 by AMA representatives and Western European medical leaders. Purpose was to exchange medical knowledge, to protect the freedom of medicine, and promote world peace.
4. Each member association sends two delegates, two alternate delegates and observers to the General Assemblies—the supreme policy making body of WMA.
5. The executive body of WMA is the Council. This meets twice a year and comprises 11 members elected from the Assembly and the President, President-Elect and Treasurer.
6. WMA is supported by members' dues and contributions and the annual budget is about \$165,000.
7. American physicians and allied corporations interested in the work of WMA are organized as the United States Committee of The World Medical Association.

THE WORLD HEALTH ORGANIZATION

1. WHO is an intergovernmental health agency. The members are the governments that accept the nine principles upon which WHO is founded.
2. WHO represents governments in their public health and medical activities.
3. WHO is the result of proposal of U. N. in 1945 to create a specialized agency to deal with all matters related to health on a world-wide scale.
4. Each member government sends three delegates, chosen preferable from the national health administration of the government, to the annual World Health Assembly.
5. The Executive Board of WHO is the executive body and consists of 18 members elected to represent 18 member governments.
6. WHO is supported by dues allocated by the U. N. scale and the budget for 1958 is \$13,000,000.
7. American citizens interested in the work of WHO are organized as the Citizen's Committee for the World Health Organization.

"THE WORLD MEDICAL ASSOCIATION

gives you friends all over the world"

Here are a few of the benefits of membership
in the "International Voice of Organized Medicine"

THE PRIVILEGE OF ATTENDING

Annual Assemblies of W.M.A. as an Official Observer for the U. S. Committee.

INTRODUCTIONS TO PROFESSIONAL LEADERS

and medical institutions, wherever you may travel abroad.

OPPORTUNITY TO PARTICIPATE

in many programs for protection of the doctor's status in peace and war.

AID AND ADVICE IN TRAVEL ARRANGEMENTS

for attendance at medical meetings abroad.

THE "WORLD MEDICAL JOURNAL"

and other newsletters and publications of W.M.A.

A MEMBERSHIP CERTIFICATE

for display and a membership card.

DR. LOUIS H. BAUER, Secretary-Treasurer
U. S. Committee, Inc., World Medical Association
10 Columbus Circle, New York 19, New York

I desire to become an individual member of The World Medical Association, United States Committee, Inc., and enclose check for \$_____ my subscription as a:

\$10.00 a year _____ Member
\$100.00 or more per year _____ Patron Member
\$250.00 (no further _____ Life Member
assessments)

Signature_____

Address_____

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(Contributions are deductible for income tax purposes)

Please make checks payable to the U. S. Committee, The World Medical Association

Organization News

"Damn Yankees" Provides Annual Meeting Extra

"Damn Yankees," the robust Broadway musical comedy hit, will be an added incentive for physicians to attend their Annual Meeting in Oklahoma City May 5-7. Featured at the Municipal Auditorium on May 5 and 6, the show represents the first successful play or musical comedy to be concerned with baseball.

Although the show conflicts with the President's Inaugural Ball on Tuesday evening, May 6, it will tie in nicely with the Blue Shield complimentary dinner on Monday night. Those physicians desiring to attend both the Blue Shield function and the musical will be able to enjoy the buffet dinner, which begins at 6:30 p.m., and still conveniently meet curtain call at 8:30 p.m.

Unique Plot

The show plot has been taken from two popular stories, one a classic, the other a recent novel. The first is the Faust legend, about an aging man (Faust) who is so drawn to a young girl (Marguerite) that he sells his soul to the devil (Mephistopheles) in return for renewed youth. A recent novel by Douglas Wallop called, "The Year the Yankees Lost the Pennant," provides the second part of this blend between old and new.

In the musical, a middle-aged, disgruntled supporter of the Washington Senators bargains with the devil to restore his youth so he can lead the Senators to a pennant over the hated Yankees. What transpires is one of the most hilarious musical comedies ever to hit Broadway.

Some of the show's songs became nationwide favorites overnight. "You gotta Have Heart," "Whatever Lola Wants" and "Who's Got the Pain" were top hit parade numbers that evolved from "Yankees."

George Abbott, author of famous musical comedy hits such as "The Pajama Game" and "New Girl in Town," wrote "Damn Yankees" with the collaboration of Wallop whose novel gave rise to the show. The



DEVRA KORWIN AND RALPH LOWE

songs were written by the same pair who wrote the "Pajama Game" music, Richard Adler and Jerry Ross.

"Damn Yankees" is sponsored by Theater Inc., 1022 Classen Boulevard, Oklahoma City. Tickets, with tax included, are priced as follows: Orchestra, first 25 rows center, \$4.75; Orchestra, balance except sides, Mezzanine, first 6 rows center and Boxes, \$3.75; Orchestra sides, balance of Mezzanine and First Balcony, first 6 rows, \$3.00; Mezzanine sides and balance of First Balcony, \$2.00. An advance ticket order blank has already been sent to all physicians, but, for those who haven't ordered, a block of seats is being held until April 30.

State Represented at Civil Defense Meeting in Dallas

On Saturday, March 8, representatives of the State Medical Association, State Health Departments and Woman's Auxiliaries of Arkansas, Louisiana, Texas, New Mexico and Oklahoma met in Dallas with the Committee on National Defense of the American Medical Association. Oklahoma was represented by William H. Reiff, M.D., and Don Blair, representing the Association and Forrest Brown, M.D., representing the State Health Department.

The A.M.A. asked each state to report on their civil defense activities, state of readiness, status of written plans, and whether or not any practical progress had been made. Doctor Reiff reported that an elaborate survival plan had been prepared for Oklahoma, with the Oklahoma City and Tulsa metropolitan areas in mind, and that the two hundred bed mobile civil defense hospital had been used during the Oklahoma floods of 1957. All of the states reported that they had done considerable work on "paper work" plans, but that little had been done to interest physicians and lay groups in implementing the plans.

In the afternoon session, workshop groups were formed and questions related to local civil defense organization were discussed. Some of the points brought out during the discussions were:

1. Medical facilities in the "non-target" areas would probably bear the brunt of medical care responsibility and personnel in such areas should be alerted to and trained for this possibility.

2. Some sort of uniform, badge or identification card would be desirable for educational and interest-stimulating purposes.

3. Coordination with other facets of Civil Defense is very important to the medical effort.

4. The 200 bed emergency hospital units are in production and about 2,000 have been

stockpiled, many of which are distributed to target area locations. "Instructional Units" that contain essentially the same equipment, but in smaller quantities, are currently being planned.

5. The best way to start a Civil Defense Organization in a community is to use the existing hospital staff organization as a nucleus.

6. Individual and small group training is essential. Many physicians do not care for injuries in their civilian practices and will need training in emergency medical care.

7. All paramedical personnel must be brought into the medical picture, for without ancillary personnel, physicians would not be able to care for casualties.

8. Some sort of a paid administrator for small groups might be the answer.

9. Legislation aimed toward compulsory participation in Civil Defense may be necessary. Legislation to give some sort of liability immunity is desirable if we are going to expect professional people to overstep the limits of their training and also ask non-professionals to assist in the medical care of casualties.

County Society Buys Livestock

The Pottawatomie County Medical Society bought every grand champion at the Junior Livestock show recently held in Shawnee. At a cost of only \$600, the physicians added much to the success of the show as well as to the enthusiasm of the young people involved.

The support of the physicians was commended in an editorial appearing in the *Shawnee News-Star* which said in part, . . . "this organization of professional men deserves public applause, along with all others who aided."

Oklahoma Physician To Attend President's Conference

Robert H. Adams, M.D., Oklahoma City, has been invited by President Eisenhower to attend the President's 10th Anniversary Conference on Occupational Safety, to be held in Washington, D.C., March 25-27, 1958.

Around the theme—"Safety Conserves Manpower . . . Manpower Builds the Future"—the Conference will consider methods of safe guarding our changing labor force against the emerging technological hazards of the Space Age. The next decade will face a relative shortage of men in the prime working ages and great increases in older and younger workers and women. To the well-known hazards will be added those resulting from wider uses of nuclear energy, new chemicals, and space flight both in research and in production. Commemorating its tenth anniversary, this Conference will assess past progress and problems as guides to the safety challenge of the future.

Great progress has been made in safety over the past generation but there were still 14,300 deaths and nearly 2 million injuries caused by on-the-job accidents in 1956.

The President will greet the delegates and Secretary of Labor James P. Mitchell will address them as will other leading figures of industry and labor. Speakers and workshops will deal with several very important aspects of the safety problem.

SOCIAL SECURITY SAYS: "It is common knowledge that most of us because of living costs, social standards, and economic misfortunes, do not set aside enough money or other assets during our working years to provide adequately for disability, old age, or death."

In other Words: Social Security believes that "most of us" must depend upon the government in our "hour of need."

Prepared by the A.M.A.

Honorary-Life Membership Applications

The following applications have been received for approval by the House of Delegates at the Annual Meeting:

Ellis Lamb, M.D., Clinton, Oklahoma
T. H. McCarley, M.D., McAlester, Oklahoma

James T. Riley, M.D., El Reno, Oklahoma
Walter J. Baze, M.D., Chickasha, Oklahoma

A. C. Hirshfield, M.D., Oklahoma City, Oklahoma

A. S. Nuckols, M.D., Ponca City, Oklahoma

D. D. Paulus, M.D., Oklahoma City, Oklahoma

Curt Von Wedel, M.D., Oklahoma City, Oklahoma

Rex Bolend, M.D., Little Rock, Arkansas

John F. Park, M.D., McAlester, Oklahoma

T. H. Brigas, M.D. Receives 50 Year Pin

The staff of the Mary Hurley hospital and its auxiliary honored T. H. Briggs, M.D., with an open house on his 83rd birthday, March 18, at Coalgate.

T. H. McCarley, M.D., McAlester, a long-time friend and former Atoka associate, presented Doctor Briggs with a 50 Year Pin on behalf of the Oklahoma State Medical Association. The open house was held between 2 p.m. and 4 p.m. and the public was invited to this occasion honoring the physician for his years of service.



J. H. Tisdal, M.D., (left above) is shown pinning a Fifty Year Pin on McLain Rodgers, M.D., as Curtis B. Cunningham, M.D. and Ellis Lamb, M.D., look on.

Two Clinton Physicians Honored

Ellis Lamb, M.D., and McLain Rogers, M.D., Clinton, were honored on March 18 when they were presented Fifty Year Pins from the Oklahoma State Medical Association. The award was presented to Doctor Lamb at a regular meeting of the Custer County Medical Society held at the Wagon Wheel Supper Club. Doctor Rogers' pin was presented to him in his home.

Notably, the awards for fifty years of medical practice fell upon two former presidents of the State Association. Doctor Rogers was president in 1922-23 and Doctor Lamb was president in 1928-29.

Virgil R. Forester, M.D., Oklahoma City, was the guest speaker for the evening's scientific program.



Ellis Lamb, M.D. (right) is shown after receiving his Fifty Year Pin from J. H. Tisdal, M.D. (left).

GENERAL PRACTITIONERS WANTED

One or two General Practitioners, town of 1500 population with another 1000 immediate trade area, Southwest Oklahoma ● Modern brick building available for moderate rent ● Financial assistance available ● No other doctor in town ● Fabulous Tipton Valley, State's richest farm land, now irrigated ● Accredited schools, good churches, paved streets, swimming pool ● REA Electric Co-op ● County Hospital within 15 minutes on pavement, local ambulance service ● A golden opportunity awaits two physicians seeking a secure future ● The Tillman County Medical Society approves this ad and will assist and cooperate in any way ● For particulars, call or write Harvey Pruett, First National Bank, Tipton, Oklahoma, or Jack D. Honaker, M.D., President, Tillman County Medical Society, Frederick, Oklahoma

Time Out

(Continued from Page 169)

time will be worth while if we're rich. So we dig in to make money. We work overtime. We never relax unless it's on our afternoon or week-ends off. To gain relaxation, the golf course is quite handy (after a fast 30 minute to two hour drive) or we seek some other form of competitive sport, either as a participant or spectator. In the moments away from the tingling interrupter invented by Bell, we are with business associates, or become emotionally involved in a game with side bets in an attempt to protect the investment. We become human dynamos. We stay edged up 24 hours a day and try to become phenomenal successes before the age of 50.

The time arrives in our daily living and practice when nothing fits into its right place. We are sore afraid to meet the routine grind of the office with all of its big and little life involving decisions; we become disgusted and disgruntled with each and every patient who wants our services. The world is cock-eyed. The mail is late, the clock wrong, our watch stops and the admitting clerk at the hospital acts as if she had never heard of us before. The simplest diagnosis becomes a confusing problem; our brain seems out of gear. When we try to think, we get grinding noises in our head instead of clear thoughts. Physicians, when they reach this point and are worn out, make more fuss over a trifle than over the real danger. They fidget and fume over an insignificant sign and miss the key-point. This can be disastrous in their daily communion with life over death.

When you find yourself up this blind alley of fear, gloom, depression or frustration, there is one thing that is a sure cure for it. A good dose of absolutely nothing. You need to bring yourself to a screeching halt from the headlong gallop of trying to beat the clock or break the bank.

You need a vacation for reflection, on your past works and deeds, as well as on plans for the move ahead—a vacation of absolutely nothing. A fast plane trip to distant medical conventions for a day or two

so that it can be deducted as a business expense is not such a vacation. Nor is the answer a constantly traveling motor trip with all the necessary and ever present decisions of where to eat, when to go or where to stop.

Maybe you have found your own oasis of tranquility in this era of perplexity to be the seashore or some other nature encompassing area. However, many have found the mountains with their forests, streams, rocks and crags to be an ideal place for this nothingness.

Should the mountains be your choice for reflection and recuperation as they were for the Great Physician when he was totally spent from healing the multitudes at Galilee, by all means go-go-go. Spend a day all by yourself high in the hills where no human being can spoil your view for the next 30-50 miles. The sense of peace and quietude is at first deafening. You can not only see as far as your eyes will let you see, but your mind can see as far as your own limitations allow you to see the horizons you hope to reach the rest of your life.

In this area of high trees perching overhead with the sun filtering down between the pine needles, the cool clear water swirling over the rounded stones, a bird's unfinished song as you disturb its peaceful repose and takes off in a flutter of bright wings, time passes so easily you lose track and with the mainspring of your clock broken you begin to feel there is all the time in the world—no hurry, no worry—just time for you to do absolutely nothing. You don't need to do one blessed thing. Here the sun is warm, the grass invites you to stretch out and watch the peaceful clouds float by. Time is nothing.

You don't have to run in order to catch the bus as if it were the last one for a week. You lose the nagging ache of doubt in your heart and the tight strangle hold of worry tightly bound around your brain. The chattering waters never raise or lower their voices but are a gentle symphony for the too tightly wound clock of nerves. High above, the scattered white clouds edged with

varied soft colors trail out from the horizon and you feel as if the deep peace of the sky has slipped down over and around you.

You are in the middle of nature and what you think about is the human man. You start seeing things in their true perspective. Right and wrong is easier to understand than man has made it. You begin to know a man—yourself.

You will realize that you are in a world that has been going on just as peacefully for a long, long time—for a long time before you were even in existence—and will continue for a long time after you are gone. In fact your very existence will seem to amount to so little in the great scheme of things—and if you had never lived—all of this would have been going on exactly the same. The mountains shrink us all to little men with little problems as well as giving us a sense of peace with the prospectus to exert our energies in the direction in which we were designed to go.

After a while of relaxing and thinking of nothing, you feel invigorated. You forget what you were worrying about; or it will seem too unimportant to worry further about. The kinks and cobwebs will be blown out of your brain. Your dreamed up troubles will have vanished like all dreams do. You arise a new man. You come out onto a plateau of your thoughts and the whole world is before you. Then is when you ask yourself "Do I amount to very much compared to that?"

You have been away by yourself with time to let your thoughts adjust to themselves. The papers if they could reach you, would be four days old, and by that time the screaming headlines would have caused someone else to do something about the trouble. In the meantime you have had TIME OUT to reflect on the deeds of your past and to analyze the steps which need to be taken to forge ahead on the steep path of existence; as well as those necessary to make your existence worthwhile.

You return to civilization with renewed vigor and regained strength to be a "good physician"—one who heals the sick when the sick can be healed.

COMING MEETINGS

(Continued from Page 218)

HILLCREST MEDICAL CENTER

1653 East 12th St., Tulsa, Okla.

April 30—Thyroid: Recent Advances in Diagnosis and Treatment, R. W. Payne, Lecturer.

May 13—Pulmonary Function, M. T. Lategola, Lecturer.

May 27—Basic GI Physiology, J. W. H. Smith, Lecturer.

June 10—Physiological Basis of Liver Function Tests, E. G. Larsen, Lecturer.

June 24—Alimentary Reserve: the malabsorption syndrome, J. W. H. Smith, Lecturer.

CONSECUTIVE CASE CONFERENCE

April 19-20, 1958

Western Hills Lodge, Sequayah State Park
Wagoner, Oklahoma

Sponsored by Oklahoma Trudeau Society and the Oklahoma Chapter, American College of Chest Physicians.

Guests of the Conference:

William W. Stead, M.D., Associate Professor of Medicine, University of Florida School of Medicine, Gainesville, Florida.

Harry E. Walkup, M.D., Chief, Surgical Service, Veterans Administration Hospital, Oteen, North Carolina.

The program will consist of several series of consecutive cases, presented with history, laboratory and physical findings, and representative X-rays. Cases to be presented are:

Ten Consecutive admissions with pulmonary histoplasmosis, Vernon Langeluttig, M.D., Missouri State Sanatorium.

Ten cases with silico-tuberculosis, Frank Bradley, M.D., Eastern Oklahoma Tuberculosis Sanatorium, Talihina, Oklahoma.

Ten consecutive pulmonary resections with post-operative space problems, Harley C. Darnall, M.D., Arkansas Tuberculosis Sanatorium.

A group of discharges with collagen vascular disorders, M. Gutierrez, M. D., T. Spengos, M.D., and A. Gutierrez, M.D.

For information concerning reservations, write directly to Western Hills Lodge, Wagoner, Oklahoma. Notice of intention to attend the meeting should be sent to Robert L. Anderson, M.D., 3102 S. Harvard, Tulsa, Oklahoma.

OKLAHOMA STATE MEDICAL ASSOCIATION 1958 DELEGATES AND ALTERNATES

(Continued from Page 199)

ELLIS	1. M. H. Newman, M.D., Shattuck	Walter H. Dersch, M.D., Shattuck
HARPER	NO ENTITLEMENT	
WOODWARD	1. E. A. McGrew, M.D., Beaver	R. G. Obermiller, M.D., Woodward
OKFUSKEE	1. Dayton M. Rose, M.D., Okemah	C. A. Carmack, M.D., Okemah
OKLAHOMA	1. V. M. Rutherford, M.D., O.C.	A. C. Lisle, M.D., O.C.
	2. E. E. Shircliff, M.D., O.C.	Ancel Earp, M.D., O.C.
	3. P. D. Caspar, M.D., O.C.	Ira O. Pollack, M.D., O.C.
	4. Jack G. Glasgow, M.D., O.C.	John D. Ingle, M.D., O.C.
	5. E. Cotter Murray, M.D., O.C.	Harry F. Singleton, M.D., O.C.
	6. Paul D. Macrory, M.D., O.C.	Wm. S. Pugsley, M.D., O.C.
	7. David Lowry, M.D., O.C.	Mark R. Johnson, M.D., O.C.
	8. Paul D. Erwin, M.D., O.C.	John M. Carey, M.D., O.C.
	9. Martin Andrews, M.D., O.C.	Jess E. Miller, M.D., O.C.
	10. Gerald Beasley, M.D., O.C.	Dick H. Huff, M.D., O.C.
	11. Marvin B. Glismann, M.D., O.C.	Harrell C. Dodson, M.D., O.C.
	12. J. T. McGinnis, M.D., O.C.	E. M. Farris, M.D., O.C.
	13. Wm. J. Dowling, M.D., O.C.	N. F. V. Barkett, M.D., O.C.
	14. Ella H. Murray, M.D., O.C.	Geo. S. Bozalis, M.D., O.C.
	15. Nolen Armstrong, M.D., O.C.	Richard A. Clay, M.D., O.C.
	16. S. R. Shaver, M.D., O.C.	Everett E. Cooke, M.D., O.C.
	17. Arnold Nelson, M.D., O.C.	Arthur F. Elliott, M.D., O.C.
	18. James S. Boyle, M.D., O.C.	Chas. W. Freeman, M.D., O.C.
	19. James C. Amspacher, M.D., O.C.	Allen E. Greer, M.D., O.C.
	20. Charles M. Bielstein, M.D., O.C.	Jess D. Herrmann, M.D., O.C.
	21. Richard E. Carpenter, M.D., O.C.	John F. Kuhn, M.D., O.C.
	22. Robert T. Sturm, M.D., O.C.	Robert C. Lawson, M.D., O.C.
MURRAY	1. P. V. Annadown, M.D., Sulphur	Jack W. Donald, M.D., Sulphur
OKMULGEE	NOT REPORTED	
OSAGE	1. Cody Ray, M.D., Pawhuska	Wm. Geiger, M.D., Fairfax
PAYNE	NOT REPORTED	
PAWNEE	NOT REPORTED	
PITTSBURG	1. Thurman Shuller, M.D., McAlester	E. D. Greenberger, M.D., McAlester
	2. T. H. McCarley, M.D., McAlester	G. M. Brown, M.D., McAlester
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	2. Ollie McBride, M.D., Ada	D. C. Ramsay, M.D., Ada
POTTAWATOMIE	1. Frances P. Newlin, M.D., Shawnee	Jodie L. Edge, M.D., Shawnee
	2. Horton E. Hughes, M.D., Shawnee	Francis A. Davis, M.D., Shawnee
ROGERS	1. D. B. Thomas, M.D., Chelsea	W. D. Anderson, M.D., Claremore
MAYES	1. C. B. Pinkerton, M.D., Pryor	W. R. Bynum, M.D., Pryor
STEPHENS	1. W. R. Cheatwood, M.D., Duncan	James L. Patterson, M.D., Duncan
TEXAS	1. Wm. N. Oxley, M.D., Guymon	
CIMARRON	NO ENTITLEMENT	
TILLMAN	1. Roger G. Johnson, M.D., Frederick	Joe C. Horton, M.D., Frederick
TULSA	1. Berget H. Blocksom, M.D., Tulsa	Gerald E. Cronk, M.D., Tulsa
	2. I. H. Nelson, M.D., Tulsa	Robert L. Anderson, M.D., Tulsa
	3. Rayburne W. Goen, M.D., Tulsa	Felix R. Park, M.D., Tulsa
	4. Marshall O. Hart, M.D., Tulsa	Ben F. Gorrell, M.D., Tulsa
	5. L. A. Munding, M.D., Tulsa	L. M. Pascucci, M.D., Tulsa
	6. Hugh Perry, M.D., Tulsa	Hays R. Yandell, M.D., Tulsa
	7. John E. McDonald, M.D., Tulsa	F. L. Flack, M.D., Tulsa
	8. Walter S. Larrabee, M.D., Tulsa	Wm. M. Benzing, Jr., M.D., Tulsa
	9. Simon Pollack, M.D., Tulsa	Wilnot B. Boone, M.D., Tulsa
	10. Chas. E. Wilbanks, M.D., Tulsa	Sol Wilner, M.D., Tulsa
	11. Harold J. Black, M.D., Tulsa	T. J. Hardmann, M.D., Tulsa
	12. P. O. Shackelford, M.D., Tulsa	Ralph A. McGill, M.D., Tulsa
	13. Earl M. Lusk, M.D., Tulsa	Robert H. Johnson, M.D., Tulsa
	14. James C. Peters, M.D., Tulsa	Robert M. Shepard, Jr., M.D., Tulsa
WASHINGTON	1. F. C. Wallingford, M.D., Bartlesville	Claire Liebrand, M.D., Bartlesville
	2. H. E. Denyer, M.D., Bartlesville	John E. Scott, M.D., Bartlesville
NOWATA	1. James Elliott, M.D., Nowata	Lynn C. Barnes, M.D., Nowata
WOODS	1. D. B. Ensor, M.D., Alva	J. F. Simon, M.D., Alva

Letter to the Editors of Medical Journals

In two cases in Laredo, Texas recently, doctors advised patients—one a diabetic and the other with a myocardial infarction—to drop accident and sickness policies they held with our Company. Both doctors thought their patient's histories of disability would prevent them from collecting claims. The advice, although it was well-intentioned, was a disservice to patients and doctors alike.

Both policies in question were our Substandard forms and they did provide coverage for recurrences of the diabetes or heart condition as well as for other illness and accidents covered by standard forms. Neither patient could get this kind of protection under ordinary policies and the doctor's mistaken advice evidently arose from a lack of knowledge that this kind of insurance is now available.

In the last few years Continental has made accident, sickness and hospitalization insurance available to hundreds who were formerly considered uninsurable. Men and women with histories of convulsive disorders, angina, coronary thrombosis, Cushing's Disease, argyria and various endocrinopathies—to name a few of over 150

conditions—are now insurable under Continental's Substandard contracts. Through use of slightly increased premiums and elimination periods for the specific condition this necessary advance in the field of accident and health insurance has been possible.

I am writing to ask if you will use this letter or any part of it in your local society journal. As physicians we are all well aware of the harm that has been caused our patients by well-meaning home remedies and old wives' tales. Unfortunately, the type of insurance advice we give often represents much the same error on our part.

Keeping up-to-date is our endless task. Please help your membership to keep up-to-date in this matter as well. I feel that it is of paramount importance that physicians understand the new advances that have taken place in the field so that insurance benefits are not withheld from the physically impaired—the very people who need accident and sickness protection the most.

Sincerely,

CLEM MARTIN, M.D.

Medical Director

CONTINENTAL CASUALTY
COMPANY

Have You Heard?

E. J. ALLGOOD, M.D., of Altus was recently named eighth district medical director of the Oklahoma division of the American Cancer Society when district members held their annual dinner at Quartz Mountain Lodge.

MRS. JACK BAXTER (Doctor Jack W. Baxter) 4 West Midland, Shawnee, Oklahoma is an accomplished medical illustrator and her artistic services are available to the physicians of Oklahoma.

O. I. GREEN, M.D., of Bartlesville, recently closed his office. An eye, ear, nose and throat specialist, Doctor Green has been in practice for 42 years.

GILBERT HYROOP, M.D., Oklahoma City, has returned from the 13th annual meeting of the American Society for Surgery of the Hand, which was held in Boston and New

York, January 31 to February 2. The first day was spent in Boston at the Boston City Hospital, and the following two days in New York at the Waldorf-Astoria Hotel, where the meeting was held.

C. J. FISHMAN, M.D., Oklahoma City, and GEORGE S. BARBER, M.D., Lawton, have been invited to the 50th anniversary celebration of Rush Medical College. There were 57 graduates in the class of 1908 and of that number, 22 are living.

After attending the President's Conference on Occupational Safety in Washington, D. C., on March 24-27, ROBERT H. ADAMS, M.D., will go to Atlantic City to attend the Industrial Medical Conference on April 19. DOCTOR ADAMS will then go to Brussels, Belgium to attend the World Conference on Prevention of Occupational Accidents, May 15-24.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association April, 1933.

ALLEGED MALPRACTICE—WATCH YOUR STEP

"Recently Oklahoma physicians, and probably the same advice went to those in other states, were advised that there would be an increase in premiums on policies protective against alleged malpractice, the rate now being \$45.00, for a ten thousand dollar policy. It is said that the agents advised those concerned that the raise was due to increase in the number of suits brought in the state. It is significant to note that only a few years ago the rate was \$15.00 to \$18.00, then it was raised to \$25.00, now, due to the depression, no doubt, it has reached the present rather high charge.

"In this connection we wish to doubt that there has been any material increase in number of such suits brought in Oklahoma, but we do want to call attention to a certain class of such cases, which should be, in the main, avoidable. Reading the petitions filed in these suits brings one to the positive conclusion that often the suit was a useless and unnecessary one to begin with. You cannot get blood out of a turnip, and especially, at this time of depression physicians should be unusually wary of bringing suits to collect fees, where, in many instances, a moment's reflection would show that all the physician would have, if he won his suit, would be a worthless, uncollectable judgment. Thousands of people, good yesterday, are 'bombproof' today against any sort of judgment, so, the physician should use a great deal of discretion, and know his judgment would be worth something, if he secured it. In some of these suits the defendant promptly counterclaims with allegations of malpractice. Whether such allegations are groundless or not the attorneys promptly take the view that he has a harder case to combat, and at once demands a larger fee, rather than his usual commission, from the physician who has placed himself in an embarrassing position. As a matter of fact it is well known that if the attorney goes ahead with his original intention to sue and get judgment upon a physician's bill, all allegations of malpractice are nullified, if the attorney gets judgment for the physician, despite the lugged in, twelfth hour allegation that the physician was guilty of malpractice. With this in mind it might be well for the physician to have an understanding in advance with his attorney that he is employing him to sue and get a judgment for services properly rendered, and that his fee will be based upon the amount of judgment he re-

Deaths

REX G. BOLEND, M.D.
1887-1958

Rex G. Bolend, M.D., former Oklahoma City physician and once chief surgeon of the 45th Infantry Division, died in Biloxi, Mississippi, March 23.

Born in Milwaukee, Wisconsin, Doctor Bolend graduated from St. Louis University of Medicine in 1911. He had been Professor of Urology at the University of Oklahoma School of Medicine and chief of urology at the Crippled Children's hospital.

A former president of the Oklahoma County Medical Society, Doctor Bolend was a member of the Oklahoma State Medical Association and the American Medical Association.

DERRIC C. PARMENTER, M.D.
1890-1958

Derric C. Parmenter, M.D., died at his home in Tulsa, March 11, 1958. Doctor Parmenter had practiced internal medicine in Tulsa since 1946.

Doctor Parmenter was a native of Gloucester, Massachusetts and graduated from Harvard Medical School in 1917. He was instructor at Harvard from 1919 to 1927. Later he was county and district health officer in Kentucky, Tennessee, Florida, New Mexico, and at Kern General Hospital in Bakersfield, California before coming to Tulsa.

Doctor Parmenter was a member of the Massachusetts Medical Society, the American Public Health Association, the Harvard Club of Tulsa, the Oklahoma State Medical Association and the American Medical Association.

covers rather than upon, bizarre allegations in reply to the suit, as originally brought. . . . "

EDITORIAL NOTES — PERSONAL AND GENERAL

" . . . WESTERN OKLAHOMA MEDICAL SOCIETY met March 21, at Clinton, and gave the following program:

"Dr. Fowler Border, Mangum, 'Humorous Paper.'

"Dr. L. J. Moorman, Oklahoma City, 'Some Diagnostic and Therapeutic Pulmonary Problems.'

PHYSICIAN PLACEMENT

Obstetrics & Gynecology

Herbert Claiborne Jones, M.D., Jr., Box 166, University Hospital Charlottesville, Virginia, age 30, married, University of Virginia 1951, finishing board qualifications, will be available Spring, 1958.

General Practice

Jack L. Coats, M.D., 1414-A East 17th Place, Tulsa, Oklahoma, age 29, married, veteran, University of Oklahoma School of medicine 1957, will be available July 1, 1958.

Sam Davis, M.D., 1605 N.E. 38, Oklahoma City, age 33, married, graduated from University of Oklahoma School of Medicine, 1956, veteran, will be available July 1, 1958.

Orthopedic Surgery

H. N. Hamilton, M.D., 13 Evergreen Road, Little Rock, Arkansas, age 36, married, veteran. Johns Hopkins, 1945, finishing Orthopedic Residency July 1958 and will be available at that time.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

Charles Edward Selah, M.D., Huey P. Long Charity Hospital, Pineville, Louisiana, age 31, married, will complete board requirements in June, 1958, veteran, graduated from Tulane 1951, will be available July 1, 1958.

Ralph L. Hopp, M.D., 338 E. Kingsley, Ann Arbor, Michigan. Married, veteran, Board Certificate held in General Surgery. Graduated Indiana University, 1950, will be available July 1, 1958.

Thoracic and Cardiovascular Surgery

Wayne E. Hird, M.D., McGuire VA Hospital, Richmond 19, Virginia, age 31, married, Korean veteran, University of Kansas 1950, Board qualified in General Surgery, Thoracic and Cardiovascular exams will be completed by next July. Will be available July, 1958.

James L. Russell, M.D., Charity Hospital of La., New Orleans 12, La., age 30, veteran, graduated from University of St. Louis 1949, Board certified in General Surgery, Board qualified in Thoracic and Cardiovascular. Will be available August, 1958.

Francis Patrick Lamb, M.D., 6426 Evergreen, Berkeley 21, Mo., age 35, married, veteran, graduated from St. Louis University in 1951, Diplomate American Board of Surgery, will be available July, 1958.

Lacum Tenens

Jack David Shirley, M.D., 430 Bellevue, Lafayette, Louisiana, age 27, married, will be inducted into U. S. Navy, October 6, 1958, graduated from University of Oklahoma in 1956, would like position for three months doing general practice. Will be available July 1, 1958.

Daniel Ray Storts, M.D., 500 Adrienne, Lafayette, La., age 27, married, graduated from University of Oklahoma, 1956, upon completion of his residency he would like to practice one year before going into Navy. Will be available July 1, 1958.

Neurosurgery

Bahif S. Salibi, M.D. (Currently Captain, MC U. S. Army) 121 Evac. Hosp., APO 971, San Francisco, California, age 35, married, Harvard, 1950, Board qualified in Neurosurgery, except for the two years of private practice required by the Boards, available October, 1958.

CLASSIFIED ADS

WANTED PHYSICIAN: recent graduate as assistant in industrial surgery. Beginning July 1, 1958. Apply Glass-Nelson Clinic, Tulsa, Oklahoma, P. O. Box 3718.

FOR SALE—Used, Complete 100 M.A. G E X-Ray Fluoroscopy Unit with Bucky Tank. Excellent condition. \$1,250.00, terms, discount for cash. W. A. Waters, M.D., 4926 E. 21st Street, Tulsa.

PHYSICIAN WANTED, State Veterans Hospital, Sulphur, approx. \$900 per month plus other benefits. Contact C. E. Bates, M.D., Box 200, Sulphur, phone 851.

CLINIC LOANS: If you are planning to build a clinic, and need to secure financing, call Pat Allen, WI 2-2402 or write 1201 Classen Dr., Oklahoma City.

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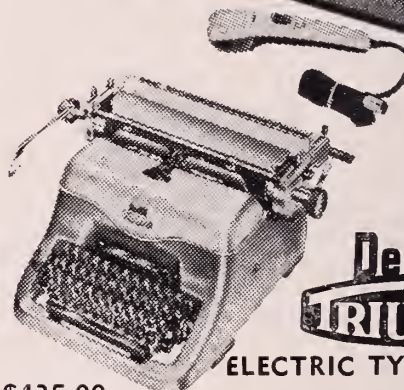
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Editorials

The Forand Bill

This bill now in Congress would provide hospital and medical care for the people covered by social security. The American Medical Association opposes this bill, for it is not in the public interest. It was sponsored by the AFL-CIO which is quite consistent with their line of thinking about health problems.

The A.M.A.'s line is a traditional one but this time there is a difference and a very notable difference. This time the A.M.A. recognizes the existence of a problem and there appears to be a problem with the health care of the aged. There is a need for a solution and the A.M.A. proposes to help solve it. There is to be a positive approach. It may be difficult for the membership to accept a positive program—it is too easy and too satisfactory for those who feel secure in their own personal following to want things to remain unchanged. It should, however, for the most part win friends, for it acknowledges the existence of a need and offers to help solve the problem imposed by that need. This is a long way from the usual immediate condemnation of anything that smells like socialized medicine.

No official word has come down as to just what the line of approach to the problem will be. On July 1, 1958, Public Law 880 which provides for assistance in the medical care of people in the four categories of dependence on the Public Welfare departments will have been in effect a year. A great deal of valuable information should be available then, concerning the degree and kind of utilization necessary for the old age group. Any bill as all encompassing as the Forand bill is quite premature if experience is to be of any value. Surely the Congress doesn't need to move that fast even in election year.

A Guess About the Program

It is rumored that the A.M.A. will seek the advice and help of the insurance com-

panies and Blue Cross-Blue Shield in developing a program for solving the medical problems of the in-between old folks. They are not poor enough to be dependent but not rich enough to provide medical and hospital care when that care is considerable. It is difficult to see how these people can be properly categorized. Perhaps if the OSIA paid the necessary premiums or contract cost on all people who made the state their legatee, the categorization would be automatic, for surely the family would pay the necessary cost if the estate was of value and if they were able. There are, of course, always a few of those avaricious unfeeling people who would see that the property was transferred prematurely.

Strange Bed Fellows

The original philosophy behind Blue Cross-Blue Shield is not the same as the philosophy behind the insurance carrier. It is doubtful whether these two can be harnessed together as a team without corrupting the philosophy of the former. It may end up supplying a substantial profit for both which would represent, of course, a superimposed cost on the already high cost of hospital and medical care.

The necessity for trying to harness the two together is not clear. It must stem from a desire to affirm medicine's belief in free enterprise, and perhaps to acknowledge the profession's and the hospital's debt to insurance companies for their help with the traumatically injured.

The concept of *free enterprise* is not abrogated by Blue Cross-Blue Shield if one accepts the thesis that the enterprise is not insurance but medical care and hospital care. Admittedly the cost of medical care is high in dollars and cents, in the sense that it is not cheap, not in the sense that it is unreasonable. To add to this cost a profit for hundreds of insurance companies a living for thousands of their employees is not really very sensible.

A Child of Its Own Creation

While the A.M.A. initially opposed Blue Cross, it is in reality a child of the profession's own creation. It is true that it was conceived at Baylor Hospital in Dallas but it was really delivered to something of importance by members of the profession and by hospitals. Blue Shield is strictly the profession's own baby. It was to be and has been thus far, the profession's answer to those crying for the socialization of medicine. If we were not sincere in its establishment, there is little hope for us anyway. If we were sincere and find it faulty let's get busy on the faults. It doesn't ring true to divide our loyalty and our interest. Surely we can back our own child without feeding and clothing and educating the neighborhood. The only people who could be critical would be those who have some type of vested interest that would be jeopardized. So what?

There may be some difference in the philosophy of the various Blue Cross-Blue Shield plans over the country but that of the Oklahoma plan would be ideal for bargaining

purposes at a high level of social consciousness. This is best brought out by its 18 year behavioral pattern.

1. It pays hospital bills not dollars.
2. It desires to pay doctors' bills (service contract rather than dollars).
3. It has always offered coverage for the entire family.
4. It permits the retired worker to continue his contract.
5. It does not cancel the contract for conditions that arise after the contract was accepted—only a waiver for those conditions which pre-existed.
6. It offers a real protection against catastrophic illness which is not limited by number of dollars in the matter of hospitalization.
7. It has consistently and regularly extended benefits when possible.
8. It has willingly negotiated with hospitals for changes in contractual arrangements made necessary by increasing costs.
9. It willingly sits down with the doctors to reevaluate items on the schedule of fees.—BHN.

Prize Offered For Case Report of House Officer

The *Journal* offers a prize of \$100 for the best paper or case report submitted by a house officer from one of the Oklahoma hospitals in 1958. There are only two stipulations:

1. At least 10 must be received during the year and if not, the time will be extended until that many have been submitted.
2. The paper must be received not later than six months after his tour of duty as a house officer at that hospital has ended.

Scientific Articles

Proceedings

*of the September 1957 Meeting of the
University of Oklahoma Arthritis Study Group*

SUBJECT: DERMATOMYOSITIS

ESSAYIST: Robert Johnson, M.D.

Resident, Bone and Joint Hospital,
Orthopaedic Surgery

PRESIDING: Wm. K. Ishmael, M.D., Associate Professor of Medicine

DR. ISHMAEL: The subject of dermatomyositis was chosen for discussion this evening because it is probably the most frequently overlooked of the "Collagen diseases."

The disease under discussion is also known as polymyositis, dermatomyositis, pseudotrichinosis, neuromyositis, dermatoneuromyositis and angiomyositis. This condition was probably first described by Wagoner in 1887. Some twenty-five years earlier he had recorded a patient with acute polymyositis but it is felt that the patient in this earlier report had trichinosis. Hepp and Unverricht also reported cases of dermatomyositis in 1887. It was three years later that Unverricht proposed the term "dermatomyositis" which is still the preferred name. This disease undoubtedly occurs more frequently than it is diagnosed. One suspects dermatomyositis in the patient diagnosed as having rheumatic fever and whose fever, malaise and muscular complaints do not respond to penicillin and salicylates, or, in the patient suspected of having diffuse scleroderma whose edema is greater than it should be and whose inability to use his extremities is caused by weakness rather than by myofascial stiffness or neurological changes. Dermatomyositis must also be suspected in the patient with rheumatoid-arthritis-like deformities who is unable to place his arms over his head without great effort in spite of the absence of humeroscapular involvement.

Doctor Robert Johnson will present the

case history of a patient with dermatomyositis and whose response during treatment merits our consideration.

DR. JOHNSON: A seventy-five year old white female was admitted to the arthritis department of the McBride Clinic on February 27, 1957 complaining of pain in the hips, knees, feet and shoulders of approximately two weeks duration. Six weeks prior to admission she had noted the insidious onset of heaviness and "doughiness" of the lower extremities, accompanied by weakness and paresthesias. These symptoms were aggravated by prolonged standing. Massage and exercise seemed to exaggerate the condition. One week prior to admission the patient noted the development of an erythematous rash over the upper anterior chest. A prominent feature of her illness had been easy fatigability and a moderate degree of morning stiffness. She denied chills, fever, or symptoms of recent infectious processes.

The systemic and past history were non-contributory and related nothing suggestive of a neoplasm. The physical examination revealed an alert, cooperative, fairly well developed, well nourished white female of approximately the stated age. She appeared chronically ill. The blood pressure was 150/80 mm of mercury; weight 150 lbs.; height 5'5"; pulse 120 min.; oral temperature 98.2 degrees F. An elevated, dry, violaceous rash was present over the forehead and upper sternal area. No palpebral edema was present on the initial examination. The thorax was symmetrical with equal expansion bilaterally. The breasts were atrophic and contained no masses. The heart and lungs were normal. The abdomen was flat and normal to palpation. The pelvic and rectal examinations were negative. A moderate degree of brawny induration without

evidence of pitting edema was present over the extremities. There was marked motor weakness of various muscle groups, particularly the flexors of the neck, the muscles of the shoulder girdle, and quadriceps group of the thighs. The involved muscles were tender to palpation. The deep tendon reflexes were absent throughout. No pathological reflexes were obtained. The sensorium was normal. There was no evidence of joint inflammation or effusion.

The admission laboratory examination revealed a normal hemogram. The erythrocyte sedimentation rate was 58-mm per hour (Westergren). Urinalysis revealed the presence of pyuria. The antistreptolysin O titer, latex fixation test, and LE preparations were all negative. The total serum protein was 5.6 gms per cent, with 3.6 gms per cent of albumin and 2.0 gms per cent of globulin. A 24-hour urine creatine excre-

tion on admission was 58-mgs (Normal 0-100); this determination was repeated one month after admission at which time it was 194 mgs. The electrocardiogram was normal. Roentgenograms on admission revealed diffuse demineralization of bone, pulmonary congestion and slight cardiomegaly.

Course: The initial treatment consisted of Vitamin B-12 intramuscularly, intravenous fluids, Sparine, and infusion of ACTH, using 15 to 20 units of ACTH to 500-cc of 5 per cent glucose in water. Physical therapy was initiated but increased the patient's pain and soreness, therefore, this was discontinued. Pitting edema of the extremities appeared. Dysphagia developed; prostration increased to the point of her being unable to turn over in bed. The voice became quite weak.

One month after admission to the hospital hepatomegaly appeared and the

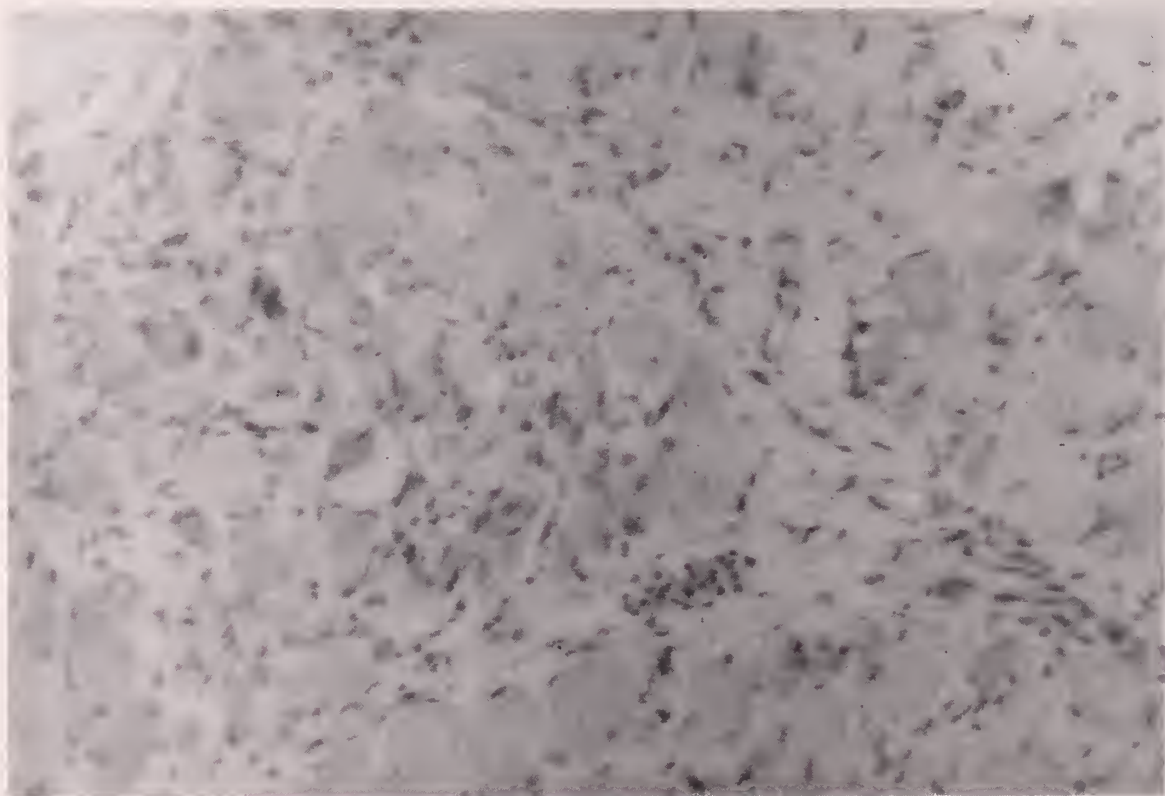


Figure 1

The microscopic picture, shown in Figure 1, taken during the active phase of the disease, shows edema by separation of the fibers. Proliferation of the sarcolemma cells is very prominent with minimal round cell infiltration. There are a few small collections of polymorphonuclear leucocytes to be seen about several of the smaller venules. There is a loss of striation in the muscle fibers found in this preparation. The muscle fibers shown are homogenous and irregular in size as well as in shape.

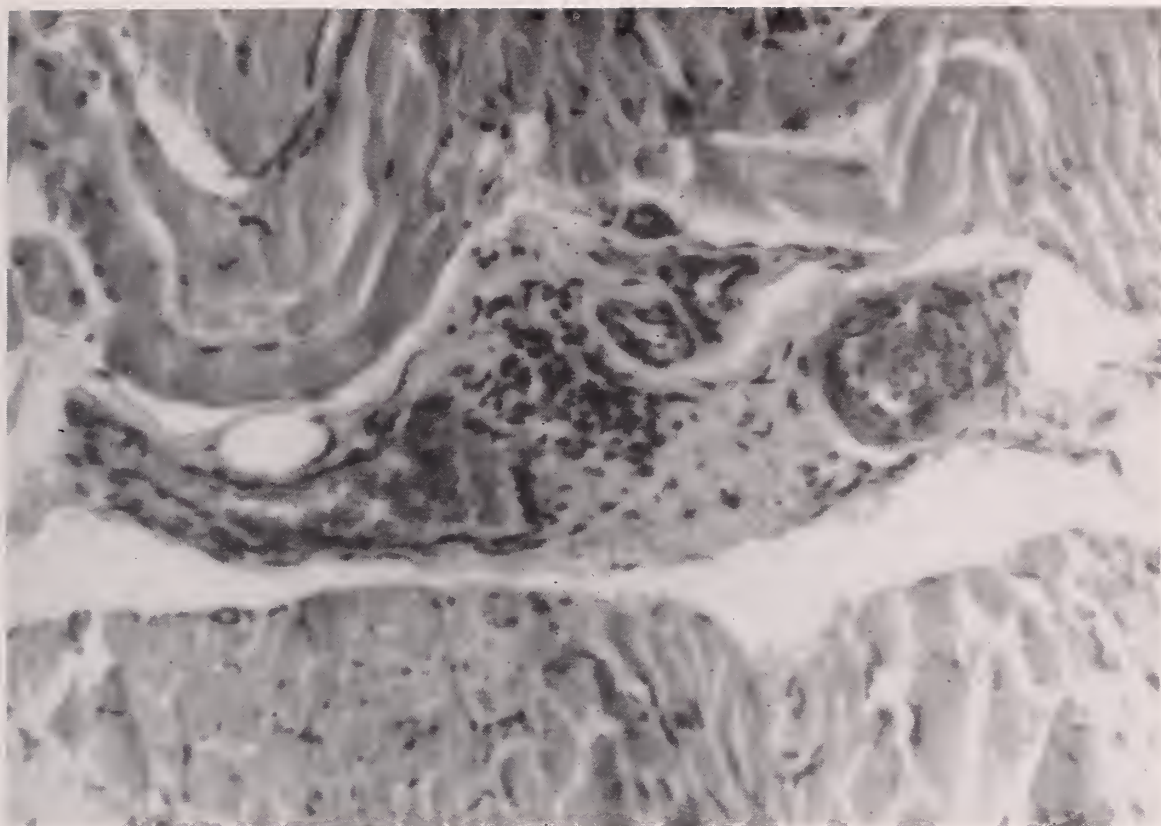


Figure 2

The microscopic picture, shown in Figure 2, shows the more normal appearance of the muscle fibers. No sarcolemmal proliferation is to be made out. No edema, or separation of the fibers can be seen. There is one small area of lymphocytic infiltration to be seen about one small vein which is the only evidence of the disease at this time.

brawny edema of the extremities became more extensive and palpebral edema appeared. The total serum protein had dropped from 4.8 gms per cent and the A/G ratio was 2.55/2.25. The hemogram and urinalysis remained normal. A specimen of the skin and underlying right pectoralis major muscle was obtained. Microscopic examination of the muscle tissue revealed changes characteristic of dermatomyositis (Figure 1).

The patient was given 100-mgs of Testosterone, intramuscularly, every other day for five days, following which subjective improvement was noted. She was then discharged from the hospital on Testosterone Propionate, 10-mgs daily, trans-buccally. During the patient's hospital stay she remained afebrile.

On April 21, 1957 the patient was read-

mitted to the hospital for further observation, after being home for approximately three weeks. She had noted a moderate degree of improvement in the function of the lower extremities and showed a decrease in the edema of her face and neck. The serum albumin was still low with an A/G ratio of 2/2. At this time it was decided to change from androgens to estrogens and to give Releasin.® She was given Estinyl, 0.05 mgs, three times daily, orally and Releasin, 1-cc daily, intramuscularly. The patient improved during Releasin therapy. The edema lessened. She was able to sit up on her bed and generalized pain was reduced. There was a diminution in the erythematous rash about the face, forehead and neck. Her chief complaint at this time was inability to swallow and her weakness.

One month following the second admission, while still receiving daily Releasin, her

condition regressed, requiring tube feeding and intravenous fluids. On July 25, 1957, approximately three months following the second admission, intravenous nitrogen mustard therapy was initiated. The procedure consisted of first giving 50-mgs of Sparine intramuscularly and then administering 10 units of ACTH, in 1,000-cc of five per cent glucose in water, by slow intravenous drip. Thirty minutes after the ATCH drip was started, 2-mgs of nitrogen mustard was given intravenously. The drip was then continued for an additional four hours. The procedure was repeated at 48 hour intervals for a total of three treatments. The Releasin and estrogen therapy was discontinued.

One week following the initiation of nitrogen mustard therapy the patient showed dramatic improvement. This was characterized by increased spontaneity, increase in strength, and a return of her appetite and ability to swallow. One month following the administration of nitrogen mustard the patient was eating well, gaining strength and tolerating physical therapy. She manifested an increasing ability to feed and turn herself in bed. It was also noted that her mood had been considerably elevated. Within two months she was able to walk between parallel bars. This was the first time that she had been able to do this since the onset of her illness.

To date this patient has progressively improved. A repeat muscle biopsy of the right pectoralis muscle revealed normal muscle tissues (Figure 2). The erythematous rash completely subsided following the nitrogen mustard therapy. The patient has had no complicating associated conditions. A repeat chest roentgenogram revealed that the previously described cardiomegaly had subsided. The deep tendon reflexes continued to remain absent. Upon dismissal from the hospital, nine months from the time she was originally seen, and four months following nitrogen mustard therapy, she was walking unassisted.

DR. ISHMAEL: Thank you, Doctor Johnson, for giving us this most interesting case history. Doctor Mary Duffy Honick will now discuss the clinical manifestations of

dermatomyositis.

DR. MARY DUFFY HONICK (Clinical Instructor in Medicine): This patient, under discussion, presents the protean manifestations of any of the collagen disorders, be it rheumatic fever, periarteritis nodosum, systemic lupus erythematosus, scleroderma or rheumatoid arthritis. The peak incidence of dermatomyositis in adults occurs in the fourth and fifth decades. However, cases have been reported in the early seventies. The skin lesion is raised, beefy, or violet-red, occurring most often over the trunk but frequently in the blush areas. These are accessible for biopsies of skin, subcutaneous tissues, and muscle which may be diagnostic. Respiratory difficulties are often characterized by difficulty with ventilation rather than pleuritic pain, with spiking fever as may characterize lupus erythematosus. Repeated negative L.E. preps aid in making this differentiation early. Several series report classical mitral stenosis with polyarticular migratory arthritis indistinguishable from rheumatic fever. However, persistent, severe malaise and muscle weakness in the face of adequate antibiotic and salicylate therapy indicate consideration of dermatomyositis. Disturbances in rhythm and heart blocks are the result of cardiac muscle infiltration by the disease process. A clinical diagnosis of rheumatoid arthritis is more apt to be entertained if articular swelling and pain persist.

This seventy year old woman did have peripheral joint involvement of this caliber. The most characteristic feature of dermatomyositis is the selective involvement of muscles which produces tenderness to palpation, gradually increasing weakness and "doughy-like" consistency to the muscle belly. Very often the shoulder muscles are involved early in the course of dermatomyositis and the patient is unable to elevate the arms above the head. This finding is of importance since rheumatoid arthritis characteristically involves the scapulohumeral joints late in its course. Swallowing was so painful for this patient that a severe state of inanition resulted. Dysphagia in dermatomyositis results from muscle involvement and not the elastic tissue changes noted in

patients with scleroderma, who have an involvement in the gastro-intestinal tract.

The association of dermatomyositis with neoplasm must be borne in mind, especially in the older age group. No manifestations of tumor were apparent in this patient during her nine months of observation. This patient, during the course of her illness, presented the stigmata of dermatomyositis by manifesting edema, muscle soreness and weakness, articular joint phenomena, cardiac arrhythmia with block, esophagitis and malnutrition. The diagnosis was confirmed by biopsy.

DR. ISHMAEL: Thank you, Doctor Honick, for your discussion of the general clinical picture of this disease. I will now call on Doctor Arthur Hellbaum to discuss the drugs used on this patient.

DR. ARTHUR HELLBAUM (Professor of Pharmacology): The treatment of dermatomyositis has been unsatisfactory. In many instances salicylates and analgesics do not relieve the muscular symptoms. Spontaneous remissions which may last for a number of years makes evaluation of treatment uncertain. Remissions apparently have been induced following administration of ACTH, or cortisone, and other glucocorticoid derivatives. However, the patients usually relapse promptly following withdrawal of these hormonal preparations. Testosterone has been used on an empirical basis because of its favorable effect on protein metabolism and sustained remissions have occurred but the evidence of its value is equivocal and cannot be classified as more than a clinical impression. Relaxin (Releasin®) was used for a period of time in this patient. Releasin is a polypeptide-like substance, secreted by the ovary, and it is concerned with the ground substance in connective tissue metabolism. It was first recognized as inducing alterations in connective tissue in the pubic symphysis of rodents and it is known to influence changes in the cervix of women at the time of parturition. Because of its known effects on connective tissue, Doctors Caston, Boucek, and their collaborators, of Miami, Florida, began using Releasin in patients with scleroderma and have treated a number of patients with this con-

dition over prolonged periods with gratifying results. Since dermatomyositis is considered by some to be a related collagen disease, Releasin was administered to this patient. The Miami investigators found that estrogen was essential in order for Releasin to be effective, consequently the administration of androgen in this patient was discontinued and estrogen begun.

During the past five years, Scherbel, Harrison and collaborators, at the Cleveland Clinic, have been administering nitrogen mustard (Mustargen) in combination with aqueous ACTH, by slow drip infusion, with gratifying results to patients with severe acute rheumatoid arthritis, and in patients with various types of collagen diseases. We have used their procedure in a number of patients with severe rheumatoid arthritis and the results have been promising, but this was the first patient with dermatomyositis receiving this type of therapy.

DR. ISHMAEL: Thank you, Doctor Hellbaum, for your discussion of the drugs used in this patient. It is necessary, in most instances, to have pathological confirmation before the diagnosis of dermatomyositis may be made. Doctor J. N. Owens, Jr., will now discuss some pathological aspects of the disorder under discussion.

DR. J. N. OWENS, Jr., (Assistant Professor of Pathology): It is usually necessary to have pathological confirmation in patients suspected of having dermatomyositis. The first important feature in pathological diagnosis of dermatomyositis is to select an involved area for biopsy. A review of cases in which biopsies were done reveals that there has been a higher incidence of positive findings in the muscles of the shoulder girdle, e.g., pectoralis major, or deltoid muscles. Skin should also be included in the tissue specimens, in order to help rule out other collagen fiber diseases, e.g., scleroderma, periarteritis nodosa, etc.

There is little consistency of findings, either in skin or muscle tissue in these patients since lesions may change as the disease progresses. One should not hesitate to repeat the biopsy if the clinical picture warrants. The skin changes most commonly

seen are described as being pale and atrophic, and rather thin. There may be localized areas of increased vascularity and or edema with white painful swelling, which usually does not pit with pressure.

The gross appearance of the muscle fibers, as seen in dermatomyositis, may vary widely from normal brownish-red, rather firm, rubbery consistency to an edematous brownish-yellow, or tan soft elastic tissue. The cut edges roll on the knife and the individual fibers and fiber bundles are, as a rule, obliterated and usually obscured due to the edema.

Microscopic changes described in the skin are atrophy of the epidermis, a few water-clear cells are frequently found in the germinal layer of the epidermis, and some plugging of the skin appendages may also be found. There is usually some round cell infiltration about the blood vessels in the corium. Some degenerative changes can be found in the deeper layers of the dermis, especially those adjacent to the epidermis, and usually consist of hyalinization changes in the connective tissue. These changes are seen in more pink staining, connective tissue fibers in the dermis. In acute phases some polymorphonuclear infiltration may be found, especially in the areas about skin appendages, as well as about many of the smaller arterioles and venules.

Changes found in the muscle areas are characterized by proliferation of sarcolemma, marked edema, as evidenced by amorphous staining material between the muscle fibers. There is also a loss of striation. Some fibroblastic proliferation and degeneration of muscle fibers and collections of polymorphonuclear leucocytes are usually in evidence about the periphery of the degenerating muscle areas and about many of the blood vessels, being slightly more prominent about the venules than about the arterioles. The older lesions show proliferation of sarcolemma and round cell proliferation, usually of lymphocytic character. The older the lesion the more prominent may be the amount of fibroblastic tissue present. The changes in the connective tissue may be a

result of edema, as well as the round cell infiltration. Loss of fibrillation and hyalinization of fibers, as well as a decrease in the size of nuclei, hardness of chromatin network in the nuclei, lack of mitotic figures are all evidence of the chronicity of these changes.

DR. ISHMAEL: Thank you, Doctor Owens, for your report on the pathological aspects of this disease. Doctor Payne would you please conclude this discussion?

DR. RICHARD PAYNE (Associate Professor of Pharmacology and Instructor in Medicine): Dermatomyositis certainly is an "odd" disease even among its peculiar cousins involving ground substance. Consider the high incidence of neoplasms in these patients and the improvement of the dermatomyositis after removal of the neoplasm. Is this the "missing link?" I am intrigued by the improvement of this patient after treatment with nitrogen mustard, a powerful cytotoxic agent. The devastating muscle atrophy, without demonstrable neurologic lesions is noteworthy though this is often superficially masked by edema. To my eye the muscle and joint deformities appearing with dermatomyositis are only casually similar to rheumatoid arthritis. There may be muscle atrophy with both diseases but the characteristic joint deformities of rheumatoid arthritis would certainly not be expected with dermatomyositis.

The advanced age of this patient is of considerable interest, particularly in view of the fact that one should not expect to see such rapid progression of the disease in this age group. In general, the juvenile variety of the disease is more characteristically fulminating.

I am greatly impressed by the response of this patient to nitrogen mustard, yet, would like to point out the notorious propensity of dermatomyositis to wide swings between exacerbation and remission, the short period of follow-up and the rather small series of patient studied.

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TRANSURETHRAL URETEROLITHOTOMY

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The operation of transurethral ureterolithotomy consists of transurethral resection of the intramural portion of the ureter (with or without including the ureteral orifice itself) employing the cutting current. The purpose of the procedure is to uncover and extract a calculus at or near the lower end of the ureter. We had used this procedure for several years without being aware that Ratner and Schneiderman¹ of Canada and, later, Davis, Lee and Davis,² of this country, were likewise using the same method. We feel certain that many urologists have found occasion to use this procedure without reporting it (Figure 1).

Although some of our colleagues are content to wait for spontaneous passage of a stone, even though this may involve months of intermittent ureteral colic with more or less debilitation, we have found the pressure to be on us to settle the issue if the stone does not pass within a few days. Our patients, as a rule, cannot be pacified with the assurance that although the stone may pass at any time we cannot guarantee that "lightning" might not strike during an important business conference or even perhaps, a social event. Adding to this those patients in whom chills, fever, anuria and other compelling reasons for immediate relief of ureteral obstruction due to stones are super-

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added, it behooves us to attach some importance to the subject. In fact the "wait and see contingent" must be as hard pressed in selecting their cases to fit their philosophical approach as their more impetuous opposite numbers.

We have all been taught that once a stone starts down a ureter it tends to be arrested in one of the two physiological narrowings; namely where the ureter crosses the iliac vessels and at, or in, the intramural portion of the ureter. Of these, the latter is by far more common because here the tube is narrower, longer and more rigid. Most stones will eventually reach this portion of the ureter. Those which become arrested higher than the bony pelvis, and which constitute a menace to the well-being of the patient, should be removed by open surgery. Those which lie within the pelvic regions of the ureter, above the ureterovesical junction, and no larger than 1 cm. in diameter, may be subjected to endoscopic manipulation employing one of the many methods known to urologists. We favor the Balkus loop. Unfortunately any ureteral instrumentation in

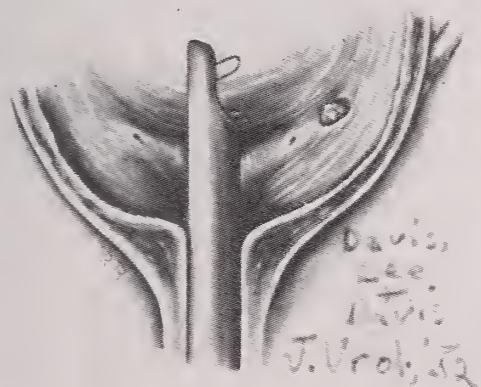


Figure 1



Figure 2—Case #1, Original pyelogram showing stone lower ureter

such cases is prone to failure. Superimposed infection and, most horrible of all, irreparable damage to the ureter with ultimate loss of a kidney, not to mention prolonged morbidity, occasionally can follow. We have great respect for the problem presented by ureteral calculi no matter what one's attitude may be toward management of these patients.

Ratner and Schneiderman, who presented the original paper on this subject, studied the length of the intramural portion of the ureter in autopsy specimens. They concluded that it varied from 1.5 to 2.0 cm. and that this length constituted the margin of safety for ureterovesical resection. McDonald³ reported a method of endoscopic resection for detachment of the ureter preparatory to complete nephro-ureterectomy. Using McDonald's technique we were surprised to see how much resection was necessary to disrupt the ureter at the vesical junction. This observation encouraged us to attempt

to extract stones higher in the vesical portion of the ureter than we originally thought would be safe.

In selecting suitable cases the most important criterion must be the knowledge that there is a stone in the lower end of the ureter and that a definite bulge can be seen within one to 2 cm. of the ureteral orifice upon cystoscopy. Where the stone is non-opaque to X-ray the point at which the intravenous dye terminates in a dilated ureter, as seen on pyelogram, can be an important guide. Ratner and Schneiderman add another indication; that it must be impossible to pass the stone with conventional stone dislodgers. This indication we would ignore in many cases where the presence of the stone is obviously optimal for resection because the stone might be pushed out of reach. Further, we believe that instrumentation, however judiciously employed, is more traumatic than resection. The other alternative of open surgery will most often



Figure 3—Case #1, Stone pushed back to renal pelvis

require a transcystic approach with much greater morbidity and prolonged hospital stay.

Among our cases we have chosen a few to illustrate the points which we hope to make:

Case No. 1. This patient was a young adult female with typical left renal colic. Figure 2 shows the original intravenous urogram which demonstrated the stone lying near the ureterovesical junction. Figure 3 shows what happened when her local physician attempted to remove the stone with a ureteral instrument to the renal pelvis and pushed the stone back. She arrived in Tulsa with a catheter in place in the ureter. The next film (Figure 4) was taken two days after the catheter had been removed demonstrating that the stone had returned to its original location. At operation the bulge in the intramural portion of the ureter appeared to be about 1 cm. proximal to the orifice so it was here that the ureter was unroofed with the resectoscope loop, em-



Figure 4—Case #1, Stone returned to original position after removing catheter



Figure 5—Case #2, Stone lower end ureter

ploying the cutting current. The stone was then easily evacuated with the cold loop. This case illustrates the failure that can occur with conventional instrumentation whereas the stone was quickly cut out transurethrally.

Case No. 2 illustrates a complication of stricture of the ureteral orifice following transurethral ureterolithotomy. The original urogram (Figure 5) demonstrates a small stone. It was impossible to bypass the stone with an ordinary dislodger. It was decided to perform resection but with some trepidation because the bulge behind the orifice was equivocal, if it existed at all. It was necessary to resect very deeply before the stone was finally encountered and evacuated. The immediate post-operative pyelogram (Figure 6) shows no hydronephrosis. The patient was discharged perfectly well but some three weeks later developed chills, fever and pain in the left renal area. Figure 7 shows the appearance of the intravenous urogram at that time.



Figure 6—Case #2, Immediate post operative film showing no hydronephrosis after resecting stone

Cystoscopy revealed a pin-point orifice in a well-healed cavity at the site of the resection. The strictured orifice was slit with the Bugbee electrode in hardly more time that it takes to tell. The next photograph of a urogram taken a few days later (Figure 8) reveals perfectly normal findings. The patient has had no further trouble. It is our opinion that once the stone had been encountered and removed at the original operation, a few small pedunculated fragments of mucosa had been left behind and intracystic pressure, we believe, forced them into the denuded cavity where they "took" and grew like a graft.

Case No. 3 was that of a young male adult in whom no instrument could be made to bypass the stone. A very deep transurethral excavation of the intramural portion of the ureter was made until finally it was thought that the crystalline substance of the stone could be seen. While exchanging instruments and washing out fragments of resected tissue it was believed erroneously that the stone had washed out. A catheter passed without resistance and X-ray at the table seemed to confirm this hope. Actually the stone had not passed, but the post-voiding

film of the cystogram (Figure 9) again shows how extensively one may safely resect the bladder junction. Before this film was taken it had been necessary to open the ureter from above and push the stone into the bladder with a basket. The appearance of the ureter here is typical of that in which much recent instrumentation has taken place.

Case No. 4. Two years before consulting us this adult male had had severe right renal colic accompanied by chills and fever. After extensive medical treatment the kidney and ureter were explored surgically elsewhere. When no stone or other lesion could be found a nephrectomy was done and a small non-opaque stone was found tucked away in a calyx in anotherwise normal kidney. Two years following this operation the patient developed complete anuria. Intravenous pyelogram did not visualize the surviving left kidney, but showed a faintly visualized stone at the lower end of the ureter. We performed a transurethral ureterolithotomy which exposed a stone which was easily removed. The patient returned to his home the following morning after operation. It



Figure 7—Case #2, Post operative stricture lower end of ureter

has been one and a half years since this operation was done and his local physician reports that he has had no further trouble.

These cases all illustrate extraordinary angles of the calculus problem and are not typical. Of approximately 30 patients whom we have treated with this operation two have had postoperative strictures. Both probably were due to the same failure to remove all tags of tissue following the resection and both were easily and permanent-



Figure 8—Case #2, Stricture relieved by slitting ureteral orifice

ly relieved by simply slitting the strictured orifice with the Bugbee electrode. There have been no instances of ureteral reflux, no chills, and no fever of discernible morbidity other than in the patients with strictures. We do not believe that it is necessary to leave an ureteral catheter in place. The patient is ready to go home the next day or even as soon as the anesthetic wears off.



Figure 9—Case #3, Showing extensive resection of ureteral orifice; also ureteritis due to instrumentation



Figure 10—Case #4, One hour intravenous pyelogram showing non-visualization of single left kidney due to stone lower end of ureter

There have been no cases of significant post-operative hematuria.

Summary and Conclusions

1. A new and reasonably simple method for evacuation of impacted stones in the ureterovesical junction has been presented.

2. Illustrative cases have been presented which show the reasons for, the limitations of and the consequences of transurethral ureterolithotomy.

Our experience has led us to these conclusions:

1. Transurethral ureterolithotomy, in properly selected cases, is easy and safe for those accustomed to endoscopic surgery.

2. When the operation is properly per-

formed there is no adverse sequelae. If stricture of the ureteral orifice should occur the situation can be easily corrected. Thus the operation is a less traumatic procedure and is more certain than instrumentation with any of the conventional stone dislodgers. For this reason it produces less morbidity and prolonged hospital stay than open operations or convention closed manipulations for the removal of low ureteral stones.

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OKLAHOMA'S ARTERY BANK

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Modern advances in the diagnosis and surgical correction of cardiovascular lesions have made the procurement, preservation and implantation of blood vessel grafts an important factor in the success of this type of operation. The main function of the bank is to store an adequate supply of suitable, safe, homologous arterial transplants.¹⁰ Approximately a year and a half ago an artery bank was established for the physicians of the State. The bank has been under the supervision of the Department of Surgery at the University Medical Center and has the continuing support and interest of the Oklahoma State Heart Association.

This type of surgical procedure dates to 1952 when DuBost first successfully resected an aneurysm of the abdominal aorta and

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re-established continuity with a preserved human arterial graft.³ Since that time many, many hundreds of people have benefited from this type of operation. Because the demand for a vessel substitute has multi-

plied, a supply of vessels has become a must. Quite naturally, numerous methods have been advocated for obtaining graft material and for sterilization and for preservation of graft material. Moreover, there has been recent interest in the use of synthetic fabrics as vessel substitutes. Currently, it is apparent that there is acceptance of cloth prostheses.^{2,5} The best artery graft and the best artery bank must be left to future study. However, it is evident that a well established, functioning bank is necessary at this time as part of complete medical care and facilities of the University Center. How then does the Artery Bank of Oklahoma contribute to this new type of surgical technique?

Hospitals in Oklahoma City and Tulsa, as well as others from time to time, participate in the procurement of suitable arteries. When a suitable individual expires in one of these hospitals, usually someone under the age of 40 dying of acute trauma or of conditions in which hepatitis, syphilis, malaria and widespread neoplastic disease can be excluded, permission is obtained from the next of kin for the removal of blood vessels for therapeutic purposes. This is done prior to embalming and within a period of six to eight hours after death. Following removal of the vessels, they are placed in a nutrient solution to which antibiotic has been added and transported to the Artery Bank. It should be emphasized it is not necessary to remove the vessels under sterile conditions. At the blood vessel bank, located in the University Hospital, at the Medical Center, the vessels are trimmed of perivascular connective tissues and a culture is planted. Then the vessel is sterilized in ethylene oxide. Following this it is placed in a vacuum system and quickly frozen. Over a period of hours the vessel is lyophilized and sealed in a glass tube in which it is stored. The vessel may be kept in this condition for several years.

When the time comes to use the vessel, the surgeon obtains the artery from the vessel bank after completing the data card kept with the artery, and the artery is reconstituted by breaking open its sterilized glass container in a basin containing isotonic salt

solution. All of the branches of the artery are carefully ligated with fine silk and the vessel tested for leaks. The graft is now ready for implantation. To date, many patients throughout the State have been helped by these vessels.

Discussion

There has been considerable difference of opinion concerning the method used in obtaining arteries for banks. Some have stressed the need of using sterile conditions while taking vessels from the deceased, while others have advocated merely taking the vessels out at the time of autopsy prior to the time of embalming. The latter method has been used satisfactorily here. We have found no need to obtain the vessels under sterile conditions and take the vessels in the hospital morgue, using conventional autopsy instruments. Then the vessel is placed in a solution of sterile saline to which antibiotic has been added for transportation to the bank. Of course, it is imperative that the vessel be sterilized following this technique. Numerous methods of sterilization have been employed. These have ranged from formaldehyde transformation of the artery to the use of high voltage x-ray,¹¹ gamma radiation and chemical sterilization. Chemically the vessels may be sterilized with beta propiolactone¹² which is a very suitable chemical agent, or ethylene oxide.⁹ In practice ethylene oxide is satisfactory and a sterile culture can readily be obtained using this chemical as a sterilizing agent.

The next major problem in artery bank function has been the storage of vessels. Initially it was found that vessels could be stored for periods of two to three weeks in a nutrient solution,⁸ either Hanks, Hartman's or Tyrode's solution, but if the vessel was not used at the end of this time it had to be discarded. This, of course, was not efficient and many very fine vessels were thrown away because they were not used during the prescribed time. It became apparent that some method of preservation for storage should be used. A method that has some merit is so-called quick freezing,⁴ in which the vessel is rapidly frozen in an acetone-dry ice mixture and then kept in a deep freeze until used. In such a state it is

imperative that crystals do not form in the vessel. The formation of ice crystals can ruin a vessel and is one of the undesirable features of the method. Moreover, the vessels must be used in six to twelve months as they deteriorate at the end of that time even if frozen. They deteriorate because of the persistence of hydration. The method of lyophilization,¹ therefore, became imperative and has been the standard method in most centers, as well as here. By this method the grafts are frozen at -70° centigrade after sterilizing and are attached to a glass manifold apparatus. During drying the vacuum pressure within the system is maintained in the region of 180 micron of mercury pressure. The drying continues with the graft submerged in an alcohol-dry ice mixture, so that vapor pressure will not rise and ice crystals will not form. Crystals will rupture the membranes of the cells of the tissue being processed. If the vacuum is continued for at least eight to twelve hours the moisture content is reduced to less than one per cent. Finally, the artery is sealed in the glass tube and stored at room temperature until used.

Arteries are only one of several tissues that are now being used as homografts or substitutes for diseased tissues. We are all aware of the recent trends in ophthalmology and the need for eye banks. We are also aware of the use made of bone banks by orthopedic, plastic and oral surgeons. Moreover, dura, skin and other tissues have also been preserved for short periods of time. The implications for the future of these various banks are indeed intriguing and deserve a moment's thought.

Immunologic reactions in the past have impaired homotransplantation of tissues since the host tissues and biochemical structure will not allow the acceptance of foreign tissues. But let us consider for a moment the patient with agammaglobulinemia.⁷ These patients have increased susceptibility to infection, absence of gamma globulin and failure of antibody production. Significantly enough, however, transplantation of the skin in both full and split thicknesses in some patients with congenital agammaglobulinemia result in the probability of *per-*

manent survival of the graft. Apparently homotransplant destruction is concerned with both circulating blood cells and plasma antibodies.⁶ This implies that in the future one will see the disappearance of individual artery banks, bone banks, eye banks and the like, and see the emergence of tissue banks. Here all types of *living* tissues may be kept and can be made acceptable to the recipient's biochemical structure with the adjunct that immunological reactions be altered to make this acceptance possible.

Summary

1. Oklahoma today has a well organized, functioning Artery Bank.
2. This bank has aided in the advance of vascular surgery in the State.
3. The use of homografts combined with immunologic studies may certainly open the door to a whole field of tissue transplantation in the future.

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NEPHRECTOMY

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It is an accepted principle of cancer surgery not only that a malignant growth must be widely excised but that this should be accomplished without direct trauma to the lesion. The cancerous kidney is no exception. Its pedicle should be ligated early and the organ, with its fascial and fatty envelope of tissue intact, removed with a minimum of operative manipulation.

Unfortunately, in many instances where the tumor is large the usual lumbar approach to the kidney is unsatisfactory. And even when the twelfth rib is excised it is often difficult to mobilize the kidney and expose its pedicle. Obviously, the rough manipulation often required to free a tumorous kidney from its attachments does not conform to one of the basic principles of cancer surgery—complete excision of the lesion without trauma.

A number of approaches have been suggested to expedite operation for the malignant kidney. At present the transthoracic route has wide popularity. This method, although it provides excellent exposure, has the disadvantage of transgressing the thoracic cavity. I have found the most satisfactory approach to the complete removal of the neoplastic kidney to be through a thoraco-abdominal-extrapleural-eleventh rib incision, which I have used in 10 nephrectomies. Although this is not a new technique, it is a method not commonly applied. I believe it has surgical advantages not fully realized. It is not difficult to perform and provides a most excellent operative exposure of the kidney. In no instance have I encountered serious postoperative complications and I agree with Doctor M. Woodruff that patients seem to suffer from less postoperative pain following the lumbar incision.

Technique

Under general anesthesia with use of an endotracheal tube, the patient is placed in the decubitus position without flexion. This

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is important. The flexion position as ordinarily used in nephrectomy is inadvisable since it places the pleura under stretch and exposes this structure to the risk of accidental perforation.

The incision is made along the eleventh rib, extending behind its angle posteriorly and anteriorly into the abdominal wall. The muscles overlying the eleventh rib are divided and the periosteum is excised and stripped from the surfaces of the rib. The stripping is started anterior to the pleural margin and carried posteriorly, to the pleura itself. The rib is cut posterior to its angle. The anterior abdominal muscles are then excised to expose the peritoneum and Gerota's fascia.

The incision is then carried posteriorly, beginning at the tip of the eleventh rib bed, until one encounters diaphragmatic fibers traversing the line of incision. These muscular fibers are transected almost to the pleural margin. Thereafter, by blunt finger dissection, the pleura may be freed from the posterior surface of the rib bed and pushed backward and upward almost to the level of the tenth rib.

The nephrectomy is started posteriorly, with exposure of the renal pedicle. Double ligatures are placed separately on the artery and vein before they are severed. Only after the vascular pedicle has been ligated is the kidney, with Gerota's fascia intact, mobilized. Care must be exercised in developing a cleavage plan in the anterior and

(Continued on Page 290)



Studies on the Maintenance of Functional and Anatomic

ORGAN-INTEGRITY *in* CULTURE^{1, 2}

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The bulk of medico-biologic investigation directly or indirectly and whether or not by intent is involved in some manner in unravelling the many facets of the general problem of "the maintenance of functional and anatomic organ-integrity." This problem is, at the same time, the aim generally of clinical practice. However, information from a wide variety of areas and by equally diverse investigative disciplines is far from complete and even the parameters per se of many of the specific related problems are not known. In the living body (in vivo) the functional and anatomic integrity of each organ must be dependent upon the continued maintenance of appropriate quantitative, qualitative and functional inter-relations between the constituent parenchymal, stromal, vascular and nervous components; yet the regulatory mechanisms are not known. Specifically, it is not established what factors are involved in maintaining the right amounts of stroma and parenchyma, or what is amiss in fibrosis or even precisely how connective tissues fibers are formed. We do not know how spontaneous, normally occurring differential physiologic degenerative processes are governed, or how the growth and repair processes of the several organ constituents are regulated so that repair is neither overdone nor under-done. It is not known to

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what extent the maintenance of organ-integrity is governed by factors intrinsic within a given organ or by extrinsic ones of which hormones are exemplary. A primary task in clarifying the mechanisms underlying the maintenance of organ-integrity must concern itself with ascertaining, if possible, the extent to which organ-integrity is governed by intrinsic factors.

Considerable information can be gained on this point through study of the extent and nature of the cytologic, histologic and functional expressions of the parenchymal, stromal and vascular constituency of isolated organs. In this report I shall briefly review some of the general findings made in this laboratory on certain of the anatomic and histo-physiologic expressions of the parenchymal, stromal and vascular constituents of adult, mammalian female genital tract organs during the course of isolation in vitro by culturing methods.

FOOTNOTES

1. These studies have been supported by funds from the Committee for Research in Problems of Sex of the National Academy of Sciences—National Research Council, The Helen Hay Whitney Foundation, and The National Institutes of Health, project C-2214-C-C3.

2. Presented in part at the Jordan Hall of Biology Deductive Symposium, Indiana University, June 6-9, 1956.

The General Method

All previous work on organ culture by means of essentially conventional tissue culture methods (Cameron, '50; Parker, '50; Gey, '37) has been limited to studies of small fragments of organs or to embryonal, fetal or new-born organs sufficiently small (Fell, '54; Chen, '54; Gaillard, '51; Martinovitch, '38; Trowell, '52). This has been due to the fact that successful cultivation in vitro of any tissue mass depends upon the provision of a system whereby nutrients (including oxygen) and metabolic wastes can be exchanged between all areas of the explant at rates sufficient to satisfy the metabolic needs of the explanted tissue-complex. If diffusion is the basic mechanism of exchange (in lieu of vascular perfusion), the explanted tissue mass must have one of its diameters approaching 1 mm or less. Certain intact organs of the adult bat, *Tadarida mexicana*, and the mouse (Carworth Farms, Strain #1) (Guthrie and Jeffers, '38), have dimensions which rather closely approach those desired and have been used extensively in this laboratory in investigations bearing on many facets of the problem of organ-integrity. Some data on the intact ovaries, oviducts and uteri of adult bats isolated in organ culture will be reported here.

The method of organ culture used here currently consists of mounting aseptically removed intact organs on discs of silicone-treated lens paper (Chen, '54) which float on the surface of a fluid nutrient phase (4cc/flask) within 100 cc Erlenmeyer or Florence flasks (Fig. 3). Capillarity through the lens paper float effects the encapsulation of the explant by a thin layer of fluid nutrient through which gaseous phase exchanges are effected at maximal rates (Chen, '54). The Florence flask can be mounted horizontally in the conventional roller drum to improve the efficiency of metabolite and nutrient exchanges. The fluid nutrient consists of mixtures of human ascitic fluid (30-45%), balanced saline (Simm's, Tyrode's, or Earle's 45-70%) with or without chick embryo extract (5-15%). The gaseous phase used in the work being reported here was compositionally atmospheric air; although mixtures of air and carbon-dioxide or 100% oxygen may be used according to

experiment design. The gaseous and fluid nutrient phases are changed conveniently through perforable rubber caps or stoppers sealing the flasks (Fig. 3), and were changed on the organ-cultures being reported here at four, five and seven day intervals. Cultivation periods have ranged from 4-35 days.

All organs after various periods of cultivation were studied by conventional histopathologic techniques for data bearing specifically on the points of maintenance growth, histo-pathologic alterations, physiologic (normal) retrograde changes, histophysiology repair processes and whether growth response patterns were histotypic, organotypic or quantitatively uncontrolled or unorganized.

In some cases of gravid and non-gravid genital tract complexes in culture, frog pregnancy tests were run on the fluid nutrient phases to obtain data on possible endocrine production.

Uncultured organs taken at the time of sacrifice served as controls for all cultured organs and complexes.

Observations and Discussion

The ovary: The uncultured intact ovary of the adult bat taken approximately three months post-partem measures about 1 x 1.3 x 1.5 mm. Histologically it is organized into medullary and cortical areas (Fig. 4). The parenchymal component is comprised collectively of 1) a surfacing germinal epithelium present as a single layer of squamous to cuboidal cell types, 2) egg follicles in various stages of development and physiologic degeneration or atresia, and 3) an abundance of interstitial tissue arranged as epithelial cords or islands in the medullary area. The stromal component consists of delicate strands of connective tissue which extend from the mesovarium throughout the cortical and medullary areas where it is organized about the follicles as theca folliculi and as partitioning strands between the cords of epithelioid interstitial cells. Major blood vessels entering the hilus of the ovary from the mesovarium comprise prominent medullary vessels which as smaller ones are distributed through the stroma in intimate association with the parenchymal tissues (Fig. 4) (Guthrie and Jeffers, '38).

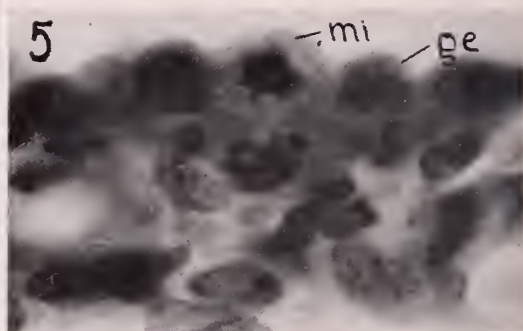
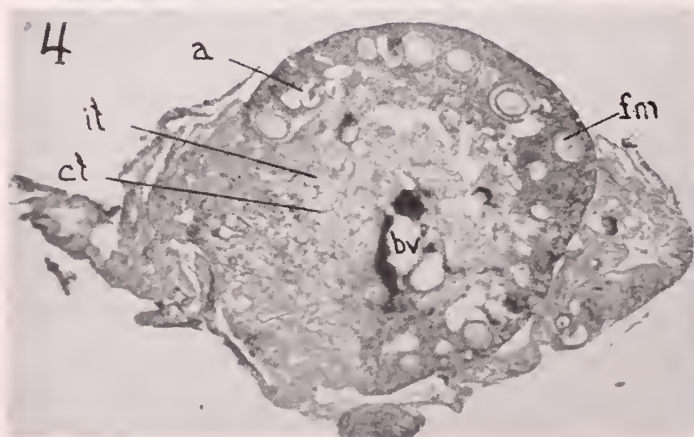
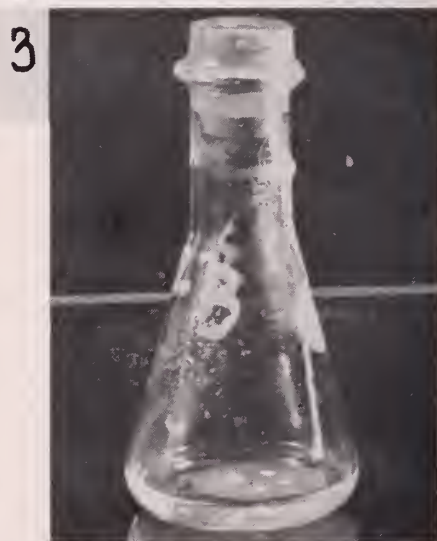
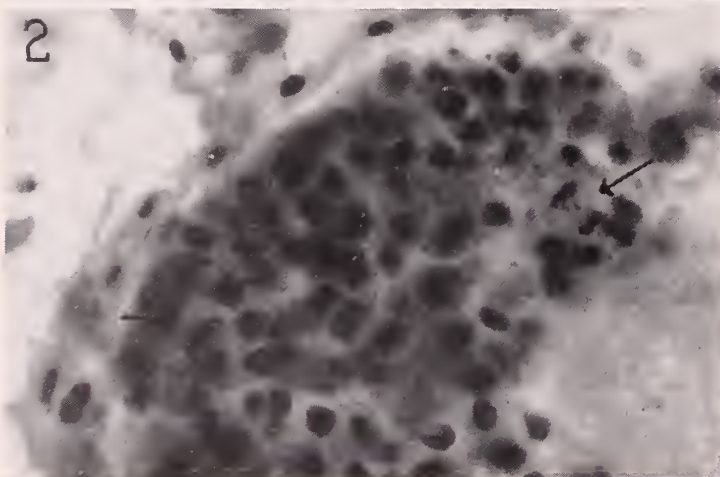
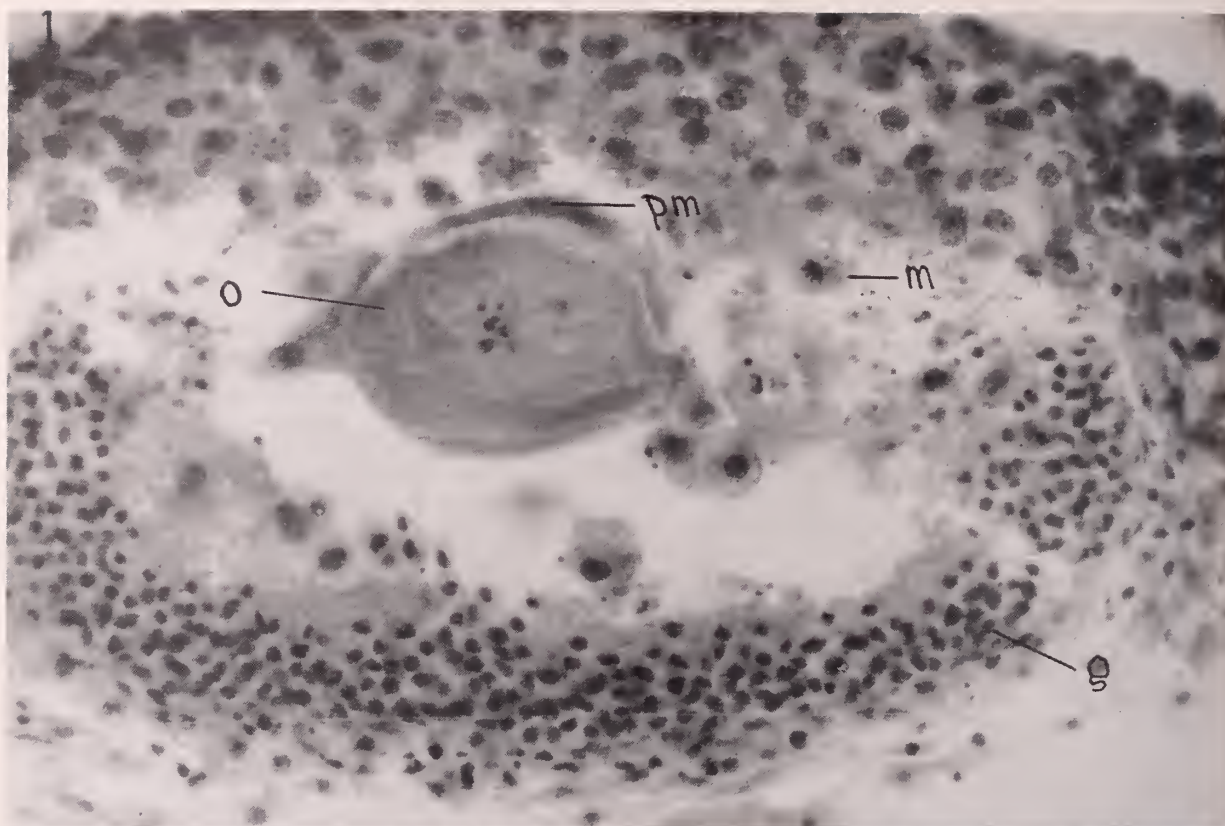


Plate 1

Intact ovaries maintained in organ culture for periods ranging up to four weeks are rather remarkably unchanged in their basic histologic structure and tissue composition from uncultured (control) ovaries. One constant change consists of the death and disappearance of formed blood cell elements which is effected in part by vascular endothelial cell phagocytosis (Richter, '58). A second is the apparent disappearance of capillaries. This seems not to be due to their actual destruction but rather to their collapse—a condition which renders them virtually indistinguishable from the delicate connective tissue strands in which they are situated (Richter, '58). Thirdly, there is some reduction in the thickness of ovarian cortex the longer the period of cultivation (Figs. 6, 8, 9). This is probably due to a combination of factors. Firstly, in culture there is no hypophyseal follicular stimulating hormone (or any other known hormones for that matter) present to influence the maturation of Graffian follicles (Guthrie, '54; Martinovitch, '38). Secondly, follicular atresia as a normal physiologic degenerative process continues on in the cultured ovaries just as in vivo so that the number of older follicles present at the beginning of cultivation is progressively diminished leaving only small young ones.

With the exception of the above general alterations in the capillaries, blood cells, and thickness of ovarian cortex, all other histologic structural features and certain associated histophysiologic processes appear normal. There is no disorganized growth or overgrowth of any of the parenchymal, stromal or vascular components. Homoplastic growth, as exemplified by the production of new cells by mitosis of fibroblasts (Figs. 1, 14), of interstitial cells (Fig. 10), of germinal epithelial cells (Fig. 5), of granulosa cells (Fig. 2) and even vascular endothelial cells (Richter, '58), is quantitatively limited and organized histotypically and organo-typically. Collectively, this type of growth is descriptively in the nature of organ maintenance or repair growth of the several different constituent tissue types (Richter, '58; Richter, Cloud and Woodward, '56).

The source of ova and follicles available

during the period of active mammalian reproduction has been the subject of much controversy, although it is now becoming accepted that the ova ripened during sexual maturity are formed concurrently from the germinal epithelium surfacing the ovary (Patten, '46). All early workers who studied oogenesis of the bat (Van Beneden, 1880; Guthrie and Jeffers, '38) concluded that new ova are produced continuously in the adult from germinal epithelium, although no mitosing germinal epithelial cells were ever observed. According to these workers, cells of the germinal epithelium enlarge differentially and become displaced beneath it as short epithelial cords that subsequently differentiate into follicular and egg cells. In the cultured intact adult ovary differential growth of germinal epithelium (Fig. 5), germinal epithelial cell cords (Figs. 6, 8), and the formation of histotypic and organotypic primordial and primary follicles occur quite as these workers recorded (Figs. 6-9) in vivo. They are, also, in accord with the findings of Gaillard ('51) on the differential growth of primordial and primary follicles from germinal epithelium in cultured fragments of the human fetal ovarian cortex. All data based on in vitro isolation of ovarian tissues show that oval and follicular development in vitro does not progress beyond the primordial or primary follicular stages. At the same time, they indicate that development to the primordial and primary follicular stages is referable to intrinsic, genetically determined homoplastic and heteroplastic capacities of the germinal epithelium.

Two complex phenomena of normal occurrence in ovaries in vivo deserve special mention because each in part is exemplary of physiologic (normal) degenerative and repair processes which are essential in the maintenance in vivo of the functional and anatomic integrity of the ovary. The one phenomenon is follicular atresia and the other concerns the functional and quantitative level of interstitial tissue.

Follicular atresia in vivo is characterized by complex cytophysiologic retrograde changes expressed by pycnosis, karyorhexis and cytolysis of the ovum and granulosa cells of old follicles. Concurrently, the acell-

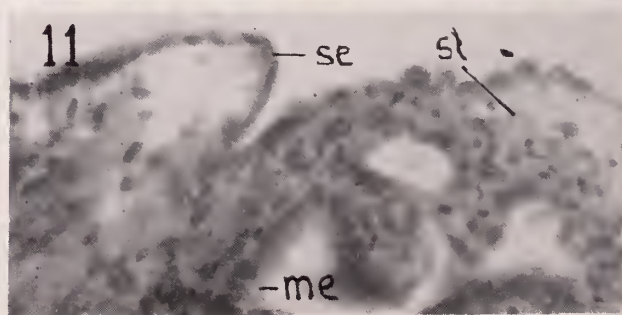
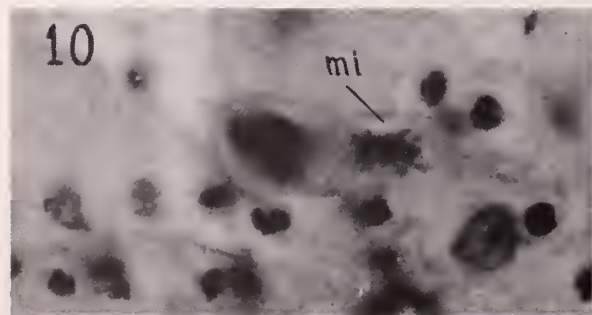
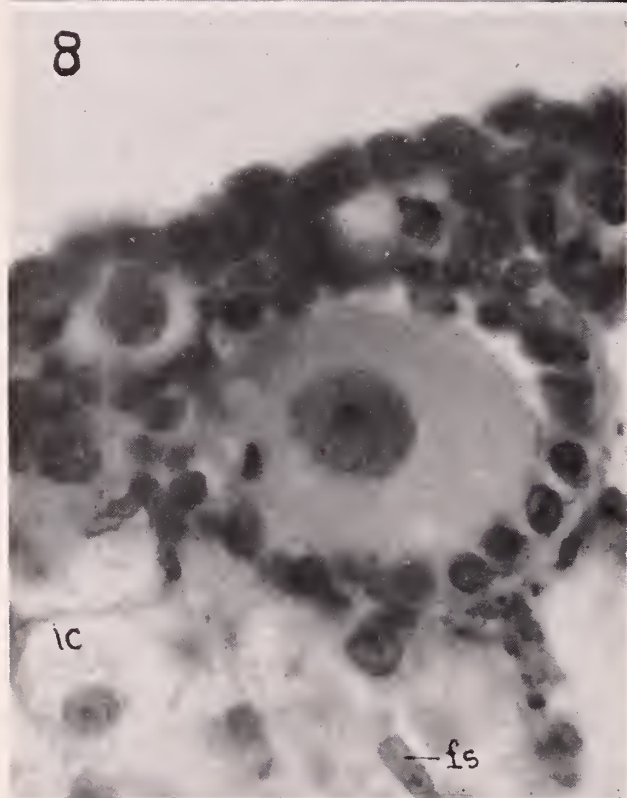
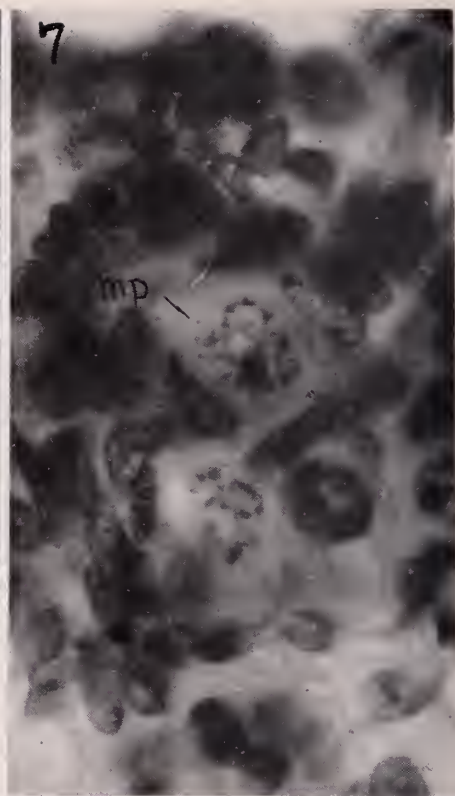
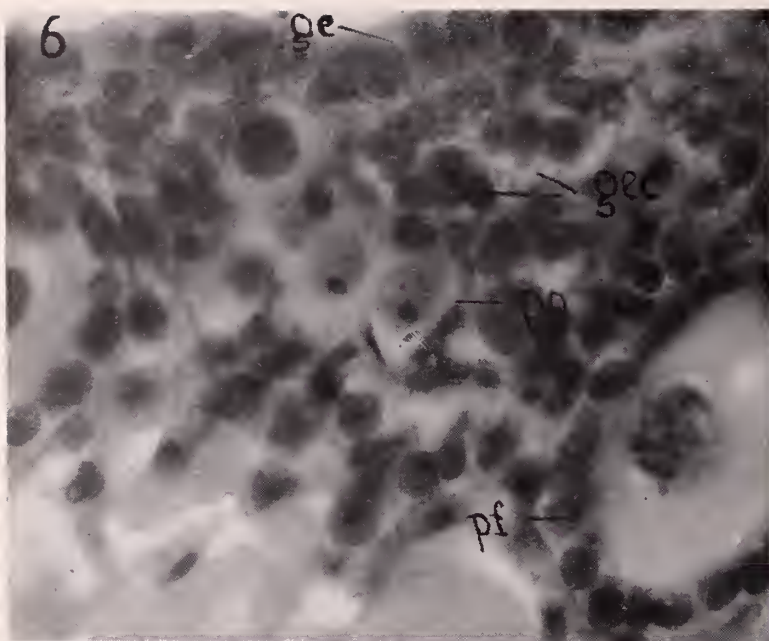


Plate 2

ular pellucid membrane about the ovum, and the basement membrane about the granulosa break down; some of the granulosa cells (and confirmed in studies of ovaries of trypan blue treated mice) become actively phagocytic and ingest the protoplasmic remains of granulosa cells and the ovum; and the follicle becomes invaded and replaced by connective tissue fibroblasts from the theca folliculi. The last discernible remnant of an atretic follicle is a shrunken bit of pellucid membrane (Figs. 4, 6) which finally is somehow resorbed under the influence of the stromal connective tissue components. In ovaries isolated in culture, follicular atresia, including the entire gamut of cyto- and histo-physiologic degenerative and organized inflammatory repair changes, occurs in normal fashion just as in vivo (Figs. 3, 4).

Guthrie and Jeffers ('38) have reported a continuous cyclic turnover of a considerable portion of interstitial tissue in the bat ovary. It is characterized 1) by a progressive hypertrophy of the interstitial cells with attending increases in lipid storage and secretory products and 2) by cytophysiologic degeneration in which the hypertrophic interstitial cells undergo pycnosis, cytorhexis and finally dissolution (Fig. 12) with replacement by ordinary stromal connective tissue elements. This turnover of interstitial cells through hypertrophy, physiologic degeneration, and destruction (Fig. 13) and replacement by connective tissue stromal elements (Fig. 14) occurs, also, in organ-cultured ovaries. Replenishment of the interstitial cell population necessitated by this continuous degenerative turnover as shown by the present study is accomplished homoplastically by mitosis of the non-hypertrophic interstitial cell forms (Fig. 10) and not as others have suggested (Guthrie and Jeffers, '38) by the transformation of thecal fibroblasts into interstitial cells.

The quantitatively limited and organized histo- and organotypic growth patterns of the several parenchymal and stromal cell constituents of the intact ovary in organ culture are in marked contrast to the growth responses of the same cell and tissue types when small fragments of ovary are cultured. In the latter instance the several paren-

chymal cell species (germinal epithelial, egg, granulosa and interstitial cells) and stromal cells (fibroblasts, macrophages) migrate and proliferate in quantitatively uncontrolled fashion and give rise to extensive outgrowths of epithelia and free epithelial cells and of fibroblasts etc. which (with one exception, Gaillard, '51) show little histotypic and none of the organotypic structural characteristics of the donor ovary (Long, '40, fetal and newborn mouse; Loeb and Fleisher, '19, rabbit; Champy, '26-27, adult rabbit; Champy and Morita, '28, rabbit and rat; Macabruni, '13, human fetal ovary; Wolff and Zondek, '25, human fetal and adult ovaries; Martinovitch, '38, fetal and newborn rat ovary; Olivo, '34, human fetal ovary; Takeguti, '35, dog). Carrel and Lindbergh ('35) reported disorganized overgrowth of stromal and parenchymal tissues of ovaries maintained in vitro by perfusion of diverse media through the vascular bed of the organ with the pulsating Lindbergh apparatus.

The oviduct and uterus: The oviduct and uterus of the adult bat in organ culture show only organized and controlled histotypic and organotypic maintenance growth of their constituent parenchymal, stromal and vascular components (Richter, Cloud and Woodward, '56). After many days in culture, they are remarkably unchanged from uncultured controls (Figs. 11, 16, 17, 15) except for the death and disappearance of formed blood cells and the collapse of capillaries. Cells of the uterine glands contain secretory products and indicate a continuation of some normal functional secretory activity in vitro. Fluid nutrient after modification by the cultivation in it of the intact gravid-uterus-oviduct-ovary complex gives a positive frog pregnancy test and indicates the production in vitro of chorionic gonadotropin.

In contrast, cultured fragments of the oviduct and uterus of a variety of mammals show generally uncontrolled and unorganized outgrowths of epithelial sheets and stromal connective tissue cell elements (Barta, '28, rabbit; Chlopin, '37; Hirsch and Jones, '33, human; Loeb and Fleisher, '19, guinea pig; Traut, '28, human; Valle and Pomerat, '47, human).

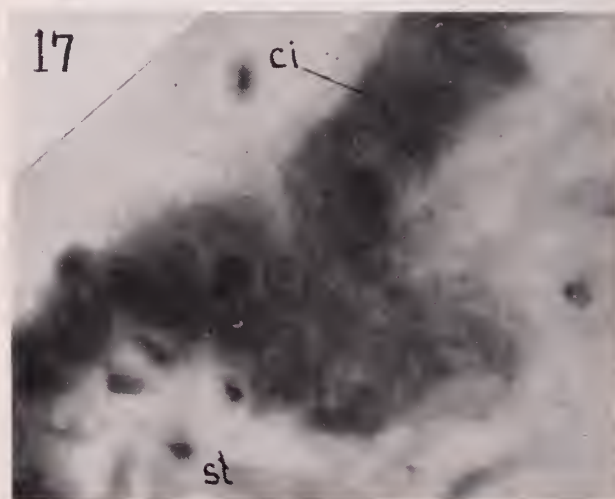
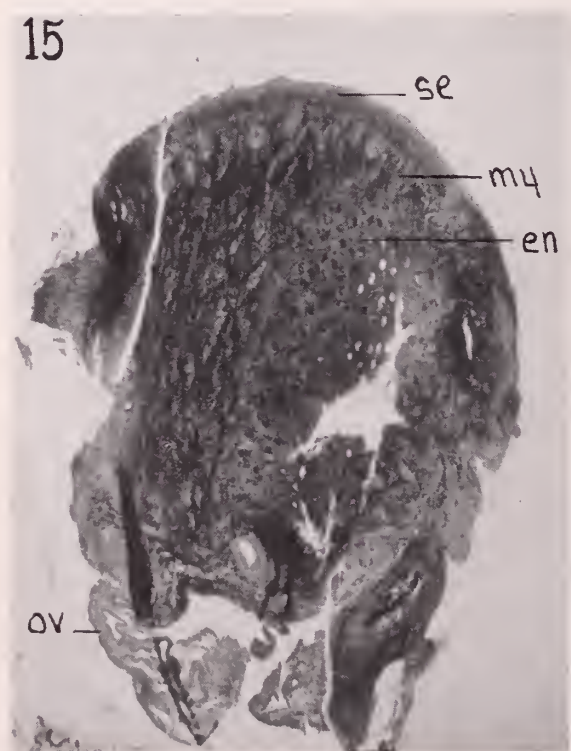
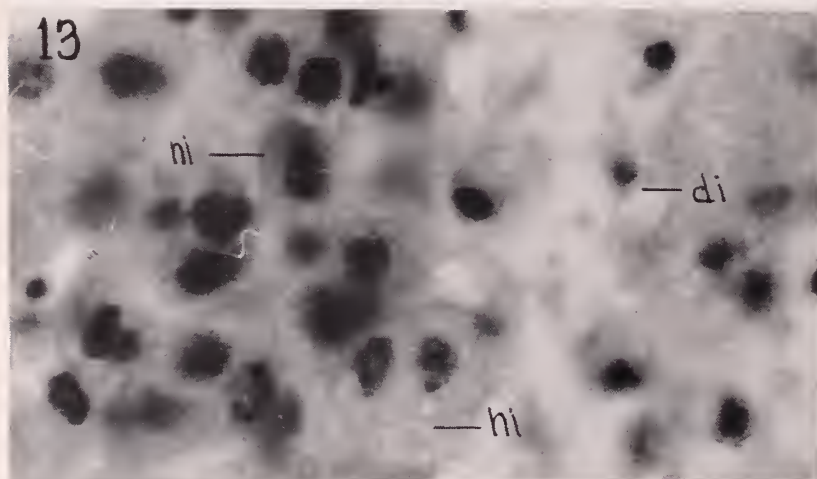
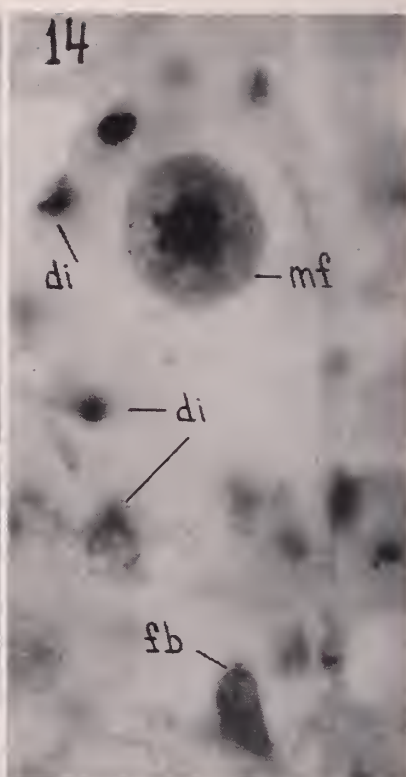
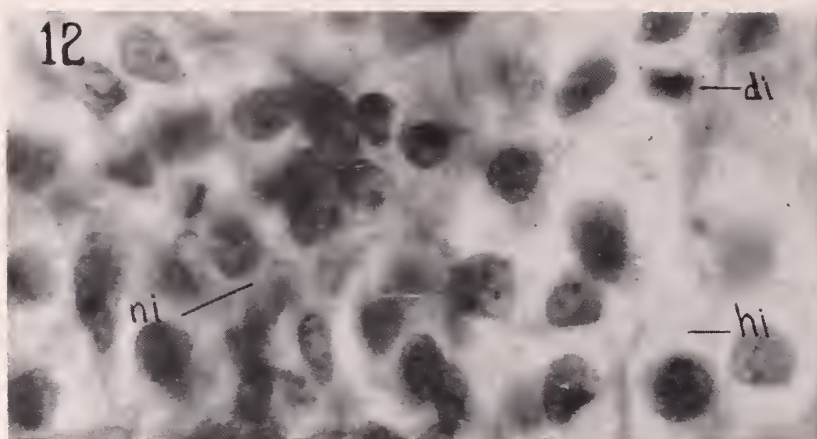


Plate 3

General Summary

Intact, adult ovaries, oviducts and uteri of the bat when isolated by organ culturing from general extrinsic systemic integrating mechanisms (i. e., nervous system, endocrine glands, vascular system and blood), maintain their normal histo- and organologic structural patterns through quantitatively limited and organized growth responses of their constituent parenchymal and stromal cell elements.

In contrast, fragments of ovaries, oviducts and uteri generally show quantitatively unlimited and unorganized outgrowths of the several parenchymal and stromal cell elements.

The marked differences in the degree and character of the growth responses of the cellular constituency of intact organs versus organ fragments in culture are referable basically to the degree of inflammatory stimulation occasioned by the method of cultivation. Tissue insult (i. e., cell death and damage and general structural derangement, compositionally and physically) is minimal in the case of explanted intact organs, and is qualitatively and quantitatively great in the case of organ fragments. The particular growth responses reflect directly these differences in degree of tissue insult and are in both instances of the nature of local intrinsic inflammatory reactions (Richter, '58).

The general lack of integrated histo- and organotypic growth responses in organ-fragments, although present in intact organs in culture, stresses the importance of intrinsic inter- or extracellular stereotropic influences (Loeb and Fleisher, '17, '18, '19; Maximow, '25; Leighton, '51; Clark '46) in initiating cell proliferation and migration and in the conditioning of cell and tissue growth patterns whether in vivo or in vitro. The present studies clearly emphasize that the conditioning of histo- and organotypic growth responses and of some special cellular functions (e. g., phagocytosis and motility) is effected largely in the fully differentiated organ by alterations in the spatial, physical and compositional characters per se 1) of non-protoplasmic extracellular formed elements (basement and pellucid membranes, fibrous components, dead cells, and particu-

late cell debris) (Loeb and Fleisher, '19; Richter, '58; Maximow, '25, and figure 1), 2) of nonformed extracellular components (amorphous ground substance, lysed cell substances, lytic substances from formed intercellular components and synthesized products released by constituent living cells); and 3) of the surfaces of living cells (Richter, '56; Maximow, '25; Robb-Smith, '57; McManus, '57). Objective evidence of the interplay of all three categories of the above intrinsic factors is to be found in follicular atresia. Precise chemical and physical information about these factors in general and in particular is conspicuously lacking or inadequate and at present our knowledge of them is virtually limited 1) to morphological description and broad chemical and physical characterizations, and 2) to their objectively demonstrable involvement in the conditioning of genetically determined cellular capacities such as phagocytosis, cell division, motility, secretory activity etc.

The practical value and need for much precise additional information bearing on the biologic, chemical and physical aspects of these factors cannot be over-emphasized for the latter are of fundamental import in neoplastic phenomena, general defense, tissue maintenance and repair processes and in the design of therapeutic agents, surgical procedures and transplantation therapy.

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GENERAL LEGEND

All illustrations are unretouched photomicrographs taken with the 35 mm Leica camera in combination with the Micro-Ibso attachment of histologic sections stained with hematoxylin and eosin.

Plate 1

Figure 1—Organized follicular atresia in 7 day cultured intact adult bat ovary, showing degenerate ovum (o), partially disrupted pellucid membrane (pm) and granulosa (g), infiltrating and mitosing fibroblasts (m). 450X

Figure 2—Portion of atretic follicle showing mitosing granulosa cells (arrows) from a 10 day organ-cultured ovary. 900X mag.

Figure 3—Organ culture set-up showing four complete unilateral female genital tract complexes each of which is comprised of an intact ovary and associated oviduct and uterus after 14 days in culture.

Magnification is $\frac{7}{8}$ actual size.

Figure 4—Section through entire control (uncultured) ovary and associated mesenteries and oviduct showing cortical area with follicles in diverse stages of maturation (fm) and atresia (a), and the medullary area with abundance of pale interstitial tissue (it), connective tissue strands (ct) and medullary blood vessels (bx). 40X mag.

Figure 5—Portion of ovarian cortex from 7 day organ-culture showing histo- and organotypic maintenance growth of germinal epithelium (ge) with one cell in mitosis (mi). 900X mag.

Plate 2

Figure 6—Ovarian cortex of 12 day organ-culture showing histo- and organotypic character of germinal epithelium (ge) germinal epithelial cell cords (gec), primordial ova with primitive granulosa (pg), and primary follicles in growth phase (pf). 700X mag.

Figure 7—Ovarian cortex of 7 day organ culture showing primordial follicles in early growth phase with the egg nuclei in meiotic prophase stages (mp). 900X mag.

Figure 8—Ovarian cortex of 7 day culture showing a) normal histo- and organotypic structural relation between fibroblastic stromal tissue (fs), interstitial cells (ic) and follicles and b) several stages in the origin of primordial follicles from germinal epithelium. 700X mag.

Figure 9—Ovarian cortex of uncultured control showing normal histology and three primary follicles in early growth phases. 900X mag.

Figure 10—Interstitial cell group with one in mitosis (mi). 700X mag.

Figure 11—Wall of ampulla of oviduct 7 days in organ culture showing normal histo- and organotypic structure, serosal epithelium (se) and lining mucosal epithelium (me), and stroma (st). 450X mag.

Plate 3

Figure 12—Representative interstitial cell group from uncultured control ovary showing cells in stages of hypertrophy (hi), degeneration (di) and non-hypertrophy (ni). 900X mag.

Figure 13—Representative interstitial cell group from 10 day organ culture showing non-hypertrophic (ni), hypertrophic (hi) and degenerative (di) interstitial cells (Compare with figure 12). 900X mag.

Figure 14—A terminally degenerate interstitial cell group (di) in 10 day organ culture being replaced by organized infiltrating fibroblasts (fb) one of which is in mitosis (mf). 900X mag.

Figure 15—Slightly tangential section through 17 day cultured uterus showing endometrium (en), myometrium (my) and serosa (se) and associated oviduct (ov). 40X mag.

Figure 16—Portion of control (uncultured) fimbria showing ciliated epithelium (ci) and stromal connective tissue component (st). 900X mag.

Figure 17—Portion of 7 day organ-cultured fimbria showing normalcy of ciliated epithelium (ci) and stromal connective tissue component (st). Compare with figure 16. 900X mag.

Experimental Therapeutic Unit

A recent handy desk reference of drugs lists over 42,000 different drugs currently available in pharmacies. This staggering total emphasizes the need for adequate evaluation of agents before they are marketed as effective therapeutic tools.

A unit with this as its aim has been established as a joint venture of the Medical Service of the Oklahoma City VA Hospital, the Department of Medicine, University of Oklahoma, and the Biostatistical Unit of the Department of Preventive Medicine and Public Health. This research unit, which includes metabolic beds, offices, and a laboratory, is located in the VA Hospital and is supported entirely by grants.

It was organized under the leadership of Doctor James A. Hagans and has continued under the supervision of Doctor David C. Mock. Other members of the group are Doctor Stanley McCampbell and Doctor Adrian Kyriakopoulos.

In addition to evaluating drugs, the investigators have been concerned with methods of evaluation. Major areas of interest are antihypertensive drugs, unsaturated fatty acids, diuretics, hypoglycemic agents, and antiemetic agents. The work of the unit may be best illustrated by briefly summarizing some of the published results.

One study demonstrated that although premedication with a capsule prior to the ingestion of an emetic dose of ipecac led to a significant decrease in the incidence of nausea and vomiting compared to ipecac ingestion alone without premedication, the placebo capsule was equally as effective as was chlorpromazine and an experimental antiemetic agent, SKF 4657. This study stressed the need of the placebo double blind design in experiments attempting to assess the value of the antiemetic agent. Comparison of "treatment results" to "no-treatment results" could lead to erroneous conclusions in favor of the agent being tested, when in truth a placebo agent, if tested, might perform just as well.¹

A second study was designed to evaluate previous reports that there are "placebo re-

actors" and "non-reactors." It has been suggested by several investigators that the "placebo reactors" should be weeded out and dropped from experimental groups in attempting to assess the pharmacodynamic activity of a therapeutic agent. Twenty-five healthy subjects had seven consecutive placebo tests each administered as "antiemetic agents." The pattern of response of these individuals to repeated placebo tests was analyzed in several different ways. The distribution of the pure and impure placebo reactors (i.e. those who reacted favorably on all seven tests, or upon six or five or four out of the seven tests) was found to be identical to that which would be expected from the counting of the number of heads on seven consecutive tosses of an unbiased coin for 25 separate trials. Further, the ability to predict the outcome of the next placebo test based upon the outcome of the one, two, three, four, five, or six previous tests was not enhanced by dividing the groups into "reactors" and "non-reactors." No evidence was found to support the concept that a placebo reactor really existed, other than as a chance phenomenon, or to support the concept that those showing reactions to a placebo during the initial tests should be dropped from the experiment.²

A third study was concerned with the statistical technique of sequential analysis which was developed by Abraham Wald during the early years of World War II. It permitted inferences to be drawn from fewer observations than any other statistical plan known. Upon its release from the "restricted category" in 1945, it found almost immediate wide-spread use for quality control in industry. During the next ten years an occasional theoretical article suggesting its use in medical research appeared, along with one or two actual applications.

Doctors Doering, Wolf, Hagans et al have demonstrated its adaptation to the interpretation of therapeutic research data. Twenty-one different pharmacodynamic agents acting on five widely differing bodily processes were tested in seven hundred and five separate trials appropriately controlled by a placebo double-blind technique. In each in-

stance there were sufficient numbers of observations to permit analysis of the data by a more standard statistical technique. The method of sequential analysis, suitably adapted, yielded valid inferences after a relatively small number of observations; these were in each instance consistent with the inferences later drawn from the larger numbers and a more commonly used statistical technique.

It was concluded that the sequential plans described should be applicable in many areas of clinical investigation and that sequential analysis should become an important and useful tool in therapeutic research.^{3, 4}

A fourth report dealt with diuretics. Healthy volunteer male subjects were studied in a metabolic ward under controlled conditions of fluid and food intake and their daily weight, 24-hour urine volume, 24-hour urine sodium, and the room temperature at 2 p.m. each day were recorded for three days of medication with either a placebo, Mictine 2.4 grams daily, or Rolicton, 2.4 or 1.2 grams daily. No significant alterations in urine volume, urine sodium or body weight were

observed in the placebo group. Mictine, and Rolicton in both dosages, were found to significantly elevate urine volume and sodium and to significantly reduce body weight. Mictine was accompanied by a high incidence of gastrointestinal side effects such as nausea, anorexia, abdominal cramping, and diarrhea. These were not observed in either group receiving Rolicton.⁵

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801 N.E. 13th, Oklahoma City, Oklahoma.

ABSTRACTS

The Influence of Estrogen and Androgen on The Ovarian Response of Hypophysectomized Immature Rats to Gonadotropins

R. W. PAYNE* and R. H. RUNSER**

Departments of Pharmacology and Medicine, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma Endocrinology, 62:313-321, 1958

The effects of human chorionic gonadotropin (HCG), pregnant mares' serum gonadotropin (PMS) and anterior pituitary gonadotropin (APG) singly and in combination with each other and with diethylstilbestrol (DES) and testosterone propionate (TP) on the ovaries of the hypophysectomized immature rat were studied. Ovarian weight and histological changes produced by these treatments are reported.

DES was found to augment APG, but not HCG or PMS, in this study. This augmentation was evidenced by ovarian weight gain and corpus luteum formation.

Certain similarities of the effects of PMS, HCG, and APG to those of estrogen and androgen were found. TP antagonized the follicular development produced by APG and DES.

HCG caused striking thecal luteinization of the cystic follicles which were produced by both PMS and APG, and consequently a substantial ovarian weight gain. DES exerted protective effects on the ova and granulosa cells in various situations.

"Combination follicles," which were partially luteinized, yet contained healthy granulosa cells and ova, were produced by the combination of PMS, HCG, and DES.

APG was found to retard or prevent premature thecal luteinization, while HCG, and to a lesser extent PMS, promoted this phenomenon.

*Associate Professor of Pharmacology and Instructor in Medicine.

**Junior Medical Student.

Aortography Experience in Eighty-Five Procedures

THOMAS O. HODGES*

American Practitioner and Digest of Treatment, 8: 1059, 1957

Aortography consists of introducing a contrast media into the aorta to opacify it and its branches for x-ray visualization. Eighty-five aortograms were performed using a translumbar approach. There were no serious complications or sequelae. All patients showed a mild hypotension which improved spontaneously and required no therapy. Nausea occurred in 14 patients and two of these vomited. Urticaria occurred in 10. One patient had a mild transient acute pancreatitis. In five patients there was extravasation of the media extravascularly. This was not associated with any symptoms. The procedure was particularly effective in establishing the presence and site of involvement in occlusive arterial disease. This was particularly important in patients prior to resectional surgery for occlusive disease. Aneurysms were demonstrated and their extent delineated. Several patients, who were thought to have aneurysms, were found to have either a tortuous vessel or a mass of some other variety. Acute thrombophlebitis in a few patients caused signs of arterial occlusion which could not be diagnosed except for aortography. The procedure was of aid in demonstrating vascular insufficiency to the kidneys which may have been of etiological importance in hypertension.

The procedure is safe when carefully done and is a valuable diagnostic aid.

*Assistant Chief, Surgical Service, Oklahoma City Veterans Administration Hospital, and Instructor, Department of Surgery, University of Oklahoma School of Medicine.

Histochemical Use of Lead Tetraacetate 11 Alpha—Hydroxycarboxylic Acid Localization

LHOTKA, J. F.* 1957

Stain Techn. 32, 275-8

Lead tetraacetate, reacting in glacial acetic acid, will attack alpha-hydroxy acids as well as 1, 2-glycols to form leucofuchsin-positive aldehyde radicals in contrast to the more limited glycol oxidation of periodic acid. This property of lead tetraacetate suggested that a comparison of tissue sections prepared by both histochemical methods might offer a means of recognizing the sites of alpha-hydroxycarboxylic linkage in tissues. Sections from organs of 27 human necropsies were prepared in this manner and examined microscopically for staining variations. These examinations indicated that although the alpha-hydroxycarboxylic linkage might be attacked by lead tetraacetate, it could not be differentially localized in

the face of the principal oxidizing action at the 1, 2-glycol linkage.

*Associate Professor of Anatomy.

The Nature of the Inhibitory Effect of Normal Human Gastric Juice on Heidenhain Pouch Dogs

WILLIAM O. SMITH,* ROBERT HOKE,** JEROME LANDY,*** RANWEL CAPUTTO,**** and STEWART WOLF*****

Intravenous injections of dialyzed, lyophilized pooled normal human gastric content reconstituted in normal saline were given to Heidenhain pouch dogs. A dose of 1.0 mg./Kg. dog weight almost invariably produced inhibition in volume and acid secretion by the gastric pouches. A mean inhibition of 59 per cent from control values resulted from 25 injections in six animals. A significant inhibition was noted with 0.5 mg./Kg. dog weight. In contrast to the inhibition of volume and acidity of the pouch juice, an increase in total nitrogen and pepsin concentration was observed—the total excretion of these moieties remaining unchanged. This finding implies a selective inhibition of the parietal cells. Saline, human albumin, synovial fluid, ovarian cyst fluid and vitreous failed to produce such inhibition, implying specificity of the effect. However, saliva produced inhibition of the same degree as gastric juice. The inhibitory factor is not inactivated by boiling alone but is destroyed by boiling after acidification to a pH of 1.0-1.5. It appears likely that the inhibitory agent is either a protein of low molecular weight or a mucopolysaccharide.

The relationship of this substance found in human gastric juice to pernicious anemia, gastric carcinoma and peptic ulcer remains to be clarified.

*Assistant Chief, Radioisotope Service, VA Hospital and Assistant Professor of Medicine.

**Senior Medical Student.

***Formerly Assistant Professor of Surgery.

****Head of Biochemistry Section, Oklahoma Medical Research Foundation.

*****Professor of Medicine.

Pancreaticojejunostomy For Chronic Pancreatitis Motion Picture Made for American College of Surgeons

MERLIN K. DUVAL, R.,* and JOHN A. SCHILLING.**

This motion picture reviews the case history of a young housewife who has chronic relapsing calcareous pancreatitis, manifest by severe abdominal pain, diabetes, weight loss, and narcotic addiction. The surgical approach to the pancreatic duct is illustrated, as well as the manner in which pancreatic duct obstruction is demonstrated. The technical details involved in decompressing the obstructed pancreatic duct into the small intestine make up the majority of the film.

*Associate Professor of Surgery, University of Oklahoma School of Medicine.

**Professor and Head, Department of Surgery, University of Oklahoma School of Medicine.

Oklahoma Colloquy on Advances in Medicine

A portion of the first Oklahoma Colloquy on Advances in Medicine was reviewed in the previous issue. The entire proceedings will be published in book form.¹

At the Colloquy, John Bland, M.D., from the University of Vermont discussed the "Central Nervous System Factors in Water and Electrolyte Metabolism." He presented evidence that the clinical and biochemical features of the hyperosmolar syndrome of cerebral damage may, at least sometimes, constitute an excessive but normal response to extreme water depletion. He did not believe that it was necessary to invoke a cerebral lesion as directly causative of the hyperosmolar syndrome. Severe dehydration can occur readily in the unconscious patient via fever, hyperventilation, sweating, inappropriate amounts of protein in tube feeding, and inadequate estimates of water needs. With advanced water depletion it is possible that secondary renal tubular damage may occur due to contracted plasma volume and inadequate renal blood flow. The hyponatremia, hyponaturia, azotemia, potassium depletion and even acidosis can be explained as a physiologic response to severe water depletion. He also discussed the role of the mesenchymal ground substance in water and electrolyte metabolism.

Robert Cooke, M.D., Department of Pediatrics, Johns Hopkins University, presented work concerning aldosterone and potassium metabolism. He concluded that the immediate effects of a load of sodium or potassium is an increase in the urinary excretion of the other ion. Depletion of the ion, the supply of which is limited, is prevented by alterations in the output of aldosterone. He discussed the mechanisms controlling the excretion of sodium and potassium and the secretion of aldosterone.

Arnold Relman, M.D., Department of Medicine, Boston University, discussed the

changes in renal function and structure induced by potassium depletion. He presented histological evidence of vacuolar and hydropic degeneration in the renal tubules in animals and in man secondary to potassium depletion. The most characteristic functional defect was impairment of concentrating ability. This may be accompanied by polydipsia and polyuria. The structural and functional defect is reversed by the correction of potassium depletion. The most common cause of potassium deficiency is severe chronic diarrhea of any etiology, but hyperadrenalism as well as renal tubular disorders with urinary wasting of potassium have also frequently been at fault. The lesions due to potassium deficiency are frequently found together with other independent renal pathology. He also reviewed the newer concepts in the renal regulation of acid-base balance.

Allen Hennes, M.D., from the Medical Service of the Oklahoma City Veterans Hospital and the Department of Medicine, University of Oklahoma, presented a preliminary report of studies of intermediary metabolism in man. He utilized Carbon-14 labeled compounds. He showed that the altered glucose tolerance produced by adrenal steroids could be differentiated from that due to diabetes. After steroid administration there was an increase in blood pyruvate which was not present in diabetes mellitus. His studies also suggested that there may be a basic difference in juvenile and adult diabetics. He presented studies of lipid metabolism in diabetics and normals which suggested that there may be disorders of synthesis of fatty acids even in the well-controlled diabetic.

The review of this Colloquy will be completed in the next issue.

1. Oklahoma Colloquy on Fluid, Electrolyte, and Nutritional Balance, to be published.



Harris D. Riley, Jr., M.D., pictured above was appointed Professor and Chairman of Pediatrics on September 1, 1957. Doctor Riley was born in Clarksdale, Mississippi. He received his B.A. degree from Vanderbilt University in 1945 and M.D. from Vanderbilt in 1948. Doctor Riley interned at Baltimore City Hospitals and Johns Hopkins. He served a residency at Babies' and Children's Hospital, University Hospitals, Cleveland, Ohio. He was on the Pediatric Service at Vanderbilt University Hospital and served in the U.S. Air Force Medical Service. In 1954 Doctor Riley was recipient of a Fellowship in Microbiology from the National Foundation for Infantile Paralysis. He was Assistant Medical Director of the Poliomyelitis Center at Vanderbilt. Doctor Riley served as a consultant to Air Force and Army Hospitals in Tennessee and Kentucky, to the Middle Tennessee Tuberculosis Hospital, to the National Foundation for Infantile Paralysis and he was Chairman of the Rheumatic Fever Committee of the Middle Tennessee Heart Association.

Endocrinology Section

In this issue the work of the Endocrinology and Arthritis and the Dental Section will be described.

Doctor R. Palmer Howard heads this Section.

The effects of adrenal cortical steroids, gonadal steroids, and of thyroid hormone on the serum lipids and lipoproteins have been of particular interest and were outlined in the first report (see March, 1958, issue of the *Journal*).

Recent collaborative studies with the Cardiovascular Section have concerned themselves with the effects of dietary modifications on the response of the serum lipids and lipoproteins to the administration of the various steroids. Two interesting facts stand out from this work: 1) Carbohydrate added to the diet in the form of sugar will prevent changes in the lipids and lipoproteins ordinarily associated with the administration of adrenal cortical steroids and 2) a protein-free diet prevents the changes in serum lipids and lipoproteins ordinarily associated with the administration of androgens. The latter finding indicates that the level of protein intake may have a crucial and previously unsuspected role in the production of the type of fat patterns seen in men and therefore possibly in the pathogenesis of atherosclerosis. This work, which was presented by Drs. Furman and Howard at the Conference on Hormones and Atherosclerosis in Brighton, Utah, March 12th, 13th, and 14th, will be described more fully in the next issue of the *Journal*.

Another finding of interest has been that the protein-free diet prevents the appearance of creatinuria which generally results from the administration of methyltestosterone.

The mechanism of action of parathyroid hormone on bone and kidney tissues is the subject of a joint study by Doctor Howard, Doctor Marvin Shetlar, Department of Biochemistry in the School of Medicine, and Doctor Walter Joel, Department of Pathology, School of Medicine. This project is determining the sequence of changes in

serum glycoproteins, calcium, and phosphorus, and in the histochemistry of the kidney of rats receiving parathyroid extract. At the clinical level, the Endocrinology Section has worked in collaboration with the Cancer Section in determining the effects of parathyroid hormone on serum glycoproteins of hypoparathyroid patients. It is evident from this work that the parathyroid hormone not only induces phosphorus diuresis, but has a rather profound effect on connective tissues.

The comparative effects of oral estrogens on urinary gonadotropins form the subject of another project which is being carried on in this section.

For papers describing work accomplished in this section see References 1 and 2 (see also References 4, 5, 6, and 7, March 1958, issue of the *Journal*).

Dental Section

This Section, under the direction of Doctor Paul W. Goaz, D.D.S., is engaged in the microbiological study of the oral flora, which it is hoped will yield information relative to the cause and control or prevention of dental cavities.

The ability of the saliva to support the growth of oral bacteria under various endocrine conditions is one of the projects that has occupied the attention of this Section.

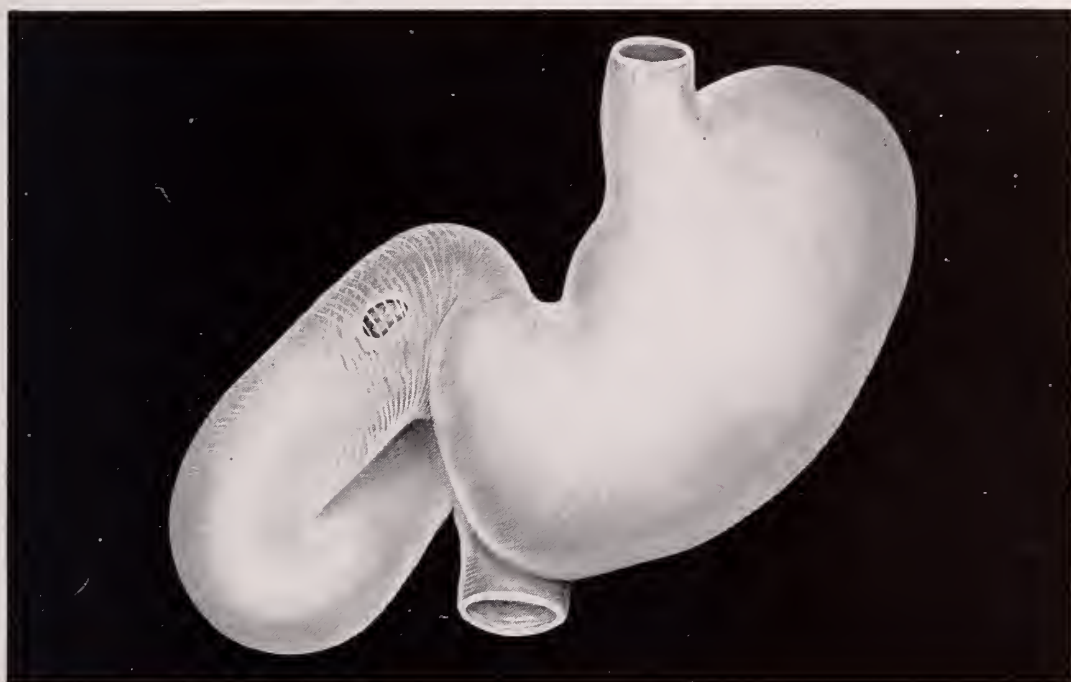
It appears that the administration of at least one hormone is capable of depressing the ability of saliva to maintain growth. A vitamin has been identified in the saliva, by Doctor Goaz, that is required for growth by the predominant group of micro-organisms in the mouth. The same micro-organisms are those that are suspected of playing a role in the dental decay.

Doctor Goaz has also been examining a symbiotic relationship in the growth of the lactobacillus of the mouth, in which yeast organisms participate, by enhancing the production of lactic acid. The production of lactic acid by the lactobacillus is suggested as one of the means by which dental cavities may be produced.

For publications from this Section see References 3, 4, and 5.

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*in depressing gastric secretory volume and in inhibiting gastrointestinal motility.”**

“Our findings were documented by an intensive and personal observation of these patients over a 2-year period in private practice, and in two large hospital clinics with close supervision and satisfactory follow-up studies.”*

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*Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Pro-Banthine in the Treatment of Peptic Ulcer. A Clinical Evaluation with Gastric Secretory, Motility and Gastrosopic Studies. Report of 60 Cases, Am. J. M. Sc. 232:156 (Aug.) 1956.

SEARLE

PRESIDENT'S LETTER



Another successful year has passed in the history of the Oklahoma State Medical Association, for which much credit is due to John Flack Burton and his competent staff who have guided us so well with keen judgment and sincerity.

There may have been a time in our history when such qualities were not so important. But along with our rapid growth there have come great changes in our social and economic order, in which the challenge to organized medicine has become much more demanding.

A few problems that are very familiar to you are compulsory health insurance, proposed Social Security legislation, Medicare, influence of organized labor on the Free choice of physicians, federal support of medical education—and a host of other issues equally as important. None of these are likely to be solved this year, or for many years, but it will be the aim of this Association to carry out your desires in these many serious matters to the very best of our collective abilities.

As I assume the duties as President of the Oklahoma State Medical Association I am extremely aware of the many responsibilities of this office. Any measure of success that I may have will be because we have all worked together as a team with one great purpose in mind—to uphold the highest standards of Medical Practice known.

A handwritten signature in dark ink, reading "E. C. Mohler, M.D.". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

P r e s i d e n t

Special Article

This is the first of a series of articles designed to acquaint the medical profession with its role in the state civil defense program.

Civil Defense, in operation during or immediately after a disaster, is simply an extended form of Government—utilizing civilians. Often termed “Emergency Government”, Civil Defense is merely the addition of trained auxiliary forces of volunteers to the established agencies of Government at all levels. There are several exceptions to the rule—

The SUGGESTED LOCAL CIVIL DEFENSE GUIDE pictured here has been described as a basic Civil Defense structure. It will be readily noted that most Civil Defense services have counterparts in local government. The major exceptions are:

1. The Rescue Service
2. The Warden Service
3. The Public Information Service

The State Office of Civil Defense will train local Rescue Squads at no cost to localities. This specialized training is presently being conducted at the Oklahoma Civil Defense Training School at Stillwater, Oklahoma, at the Oklahoma State University. These same training facilities are available, free of charge, for local Civil Defense organizations on weekends. For the Warden Service, the State Civil Defense Headquarters provides Training Manuals, motion pictures and training kits, also at no cost to the local community. In most cities and towns the Public Information duties are assigned to the local newspaper editor or newspapermen.

The Director of Civil Defense of each political sub-division is either the Mayor or someone appointed by the Mayor to function in this capacity. The State Civil Defense Director supplies the City and County Director with recent and current information

WHAT

Is Civil Defense and

WHO

Is Responsible?

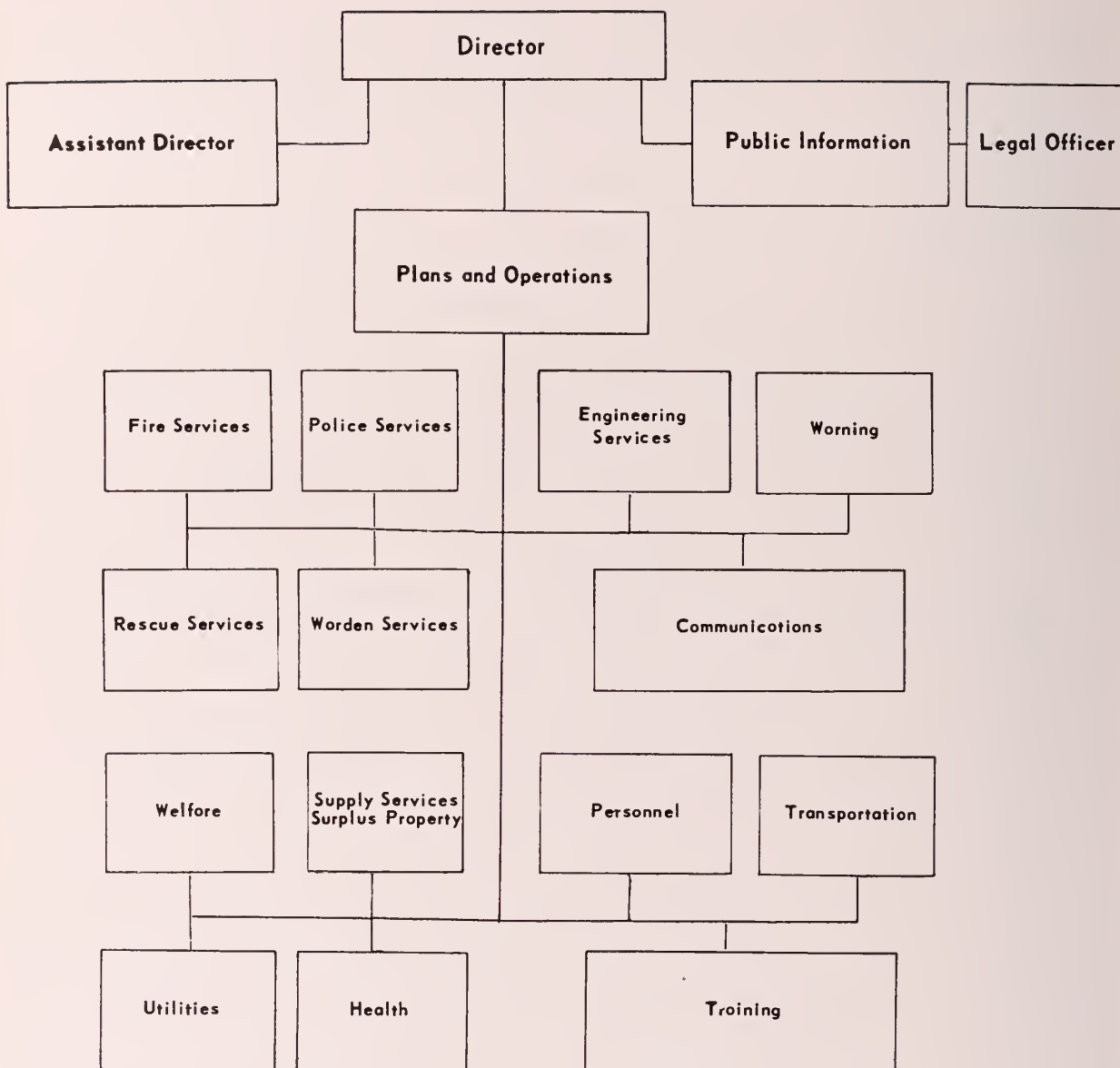
JERRY RAGSDALE,

Director of Public Relations,
Oklahoma Civil Defense

regarding various Civil Defense phases and services. Newly appointed City and County Directors receive current training manuals, educational publications and other Civil Defense material from time to time. Also, the State Headquarters supply local Directors with educational material for general distribution to the citizenry. This information and material is not mailed promiscuously to local directors, but only upon request of the local director; this saves thousands of dollars each year in postage and printing costs.

Local Civil Defense organizations can receive financial assistance to achieve their ultimate goal. Localities can receive matching funds, fifty-fifty (50-50), for purchase of Civil Defense equipment. The approved list of items includes more than two hundred (200) medical items in addition to items in many other classifications.

Through the State Civil Defense Headquarters, local Civil Defense Units are also eligible for surplus property. During time



of major disasters, cities and counties can receive outright grants of monies for the repairs of publicly owned facilities, roads, bridges, schools, municipal buildings, etc.

The responsibility for an active Civil Defense Program in any community rests upon the top elected officials, the Mayor or the County Commissioners as the case may be. These top, local-level, elected officials accept the responsibility for civil defense and disaster preparedness for their respective communities.

Speaking in terms of the doctor, one might say that civil defense is like the op-

erating room, for coordination and organization are required in both instances. The surgeon corresponds to the local director—for he or she directs the operation whether it be a disaster operation or an appendectomy.

Civil Defense might be briefly described as non-military defense, an integral part of constituted government. It is the mobilization of the total resources of our communities, the emergency function of every element of our society including government, business, industry, school, church and the home at times when the regular duly constituted government is inadequate.

A.M.A. Indorses 'Bricks-and-Mortar' Aid to Medical Schools

The American Medical Association has indorsed legislation for federal grants to help build and equip medical and dental schools, but has advised Congress that it opposes any financial incentive to increased enrollment that might tempt schools to accept more students than they could properly train. The Association's views were presented to Chairman Oren Harris (D., Ark.) of the House Committee on Interstate and Foreign Commerce, which has under consideration three bills on this subject.

On April 22 and 23, the committee's health subcommittee will conduct panel discussions on all aspects of federal assistance to medical and dental schools.

Doctor Blasingame's letter made these suggestions regarding amendments:

1. The Association has no objection to grants greater than 50 per cent of the cost of a project, if there is no financial incentive to increased enrollment. One bill (*H.R. 7841*) would limit the grant to 50 per cent, unless the school agreed to increase its freshmen enrollment by five per cent, in which case the school could receive up to two-thirds of the cost.

2. A proposed advisory federal council should have six of its members "from among leading medical authorities and public members should include persons skilled in the broad aspects of engineering, education, finance and architecture."

3. The definition of "schools of medicine" should be changed to eliminate schools of osteopathy from benefits. "Osteopathy is not a part of medicine, but rather is a cult the tenents of which are based on unscientific principles . . ."

Regarding the broad issue of aid to medical schools, Dr. Blasingame declared:

"Generally, the American Medical Association is opposed to federal aid in those areas where private citizens and local communities are capable of providing for themselves. We believe federal aid to be a dangerous device because of the degree of control and regulation which must necessarily accompany federal funds.

"We believe, however, that there is sufficient need for assistance in the expansion, construction, and remodeling of the physical facilities of medical schools to justify a one-time expenditure of federal funds, on a matching basis, provided of course, that maximum freedom of the schools from federal control is assured."

Regarding the bonus for increasing enrollment, Doctor Blasingame states:

"There are a number of features of *H.R. 7841* which in our opinion, if adopted, would be detrimental to medical education. First, we are concerned that the bill would needlessly establish a precedent for urging or inducing medical schools to increase their enrollment more rapidly than is justified by their facilities, personnel, and teaching material.

"Without an analysis of each individual school, it is quite possible that a five per cent increase in freshman enrollment at the present time would be detrimental to the quality of medical education or that such an increase in succeeding years would be unwise. We feel obligated to point out the dangerous principle which would be established, and to urge the committee to remove this unnecessary feature from the bill. We are certain that schools capable of increasing enrollment will do so without prompting."

26 Million Paid Oklahomans For Health Insurance Last Year

Benefit payments by insurance companies to the people of Oklahoma who are covered by health insurance policies reached a new high during 1957, the Health Insurance Institute reported recently.

In the period from January 1 through December 31, 1957, said the Institute, over \$26 million was paid out to help cover the cost of hospital and doctor bills, and to replace income lost through sickness or disability. This represents a gain of 17.2 per cent over the 1956 figure of \$22.2 million, and is based upon reports from insurance companies doing business in the state.

The rise in benefit payments in Oklahoma was also reflected in the figures for the nation as a whole, the Institute further noted. Persons protected against the expenses of hospital and medical care and treatment received a total of \$2.5 billion in benefits from their insurance company policies in 1957, up 16.1 per cent over the previous year's high of \$2.1 billion. By the end of the year, an estimated 70 million persons were covered by health cost policies bought from insurance companies, more than all other types of voluntary health plans combined.

The Health Insurance Institute is the central source of information for the nation's insurance companies serving the public through voluntary health insurance.

A.M.A. Asks Improved Medical Setup in CAA

American Medical Association has asked Congress to strengthen the Civil Aeronautics Administration medical department so it can properly discharge its responsibilities. A letter from A.M.A. General Manager Blasingame to Chairman Magnuson (D., Wash.) of the Senate Interstate and Foreign Commerce Committee points out that under present conditions the medical department is subordinated in the CAA and medical issues are being settled by the Civil Aeronautics Board, which does not have

qualified medical personnel. The letter makes these points:

1. Physical standards for and medical evaluation of fliers "must be carried out by physicians experienced in aviation medicine and medical determination should be conducted by physicians . . . who have the necessary professional qualifications and experience."

2. There should be set up within CAA an office of civil air surgeon, with the chief directly responsible to the administrator, and a civil aeronautics medical research laboratory.

3. Rule-making authority for medical standards should be transferred from the CAB, which does not have a professionally qualified medical staff, to CAA.

Doctor Blasingame also pointed out that the A.M.A. now has a permanent and active committee on aviation medicine, and that the Association's policy is based on recommendations of this committee.

Doctor Alphin Resigns As Washington Office Director

Thomas A. Alphin, M.D., Director of the Washington Office of the American Medical Association since November 1955, has resigned, effective May 1, to become Associate Medical Director of the Equitable Life Assurance Society at the group's main office in New York City. He first came to the A.M.A. as Assistant Director of the Washington Office in 1953, a post he left six months in 1955 to serve as Assistant Dean, Faculty of Medicine, University of Missouri. In announcing the resignation, Doctor F. J. L. Blasingame, A.M.A. General Manager, commended Doctor Alphin for his forceful leadership and the contribution he has made to the medical profession while serving the A.M.A. in Washington. Doctor William J. Kennard, Deputy Director, has been named as Acting Director of the Office. He joined the Washington Office as an Assistant Director in 1955, after his retirement at Brigadier General in the Air Force Medical Corps.

Fount Richardson, M.D., Named President-Elect of AAGP

Fount Richardson, M.D., Fayetteville, Arkansas, was named President-Elect of the American Academy of General Practice at the Tenth Annual Scientific Assembly of the Academy held in Dallas March 24-27. Doctor Richardson will be installed as President at the Eleventh Annual Scientific Assembly of the Academy in San Francisco next March. He will succeed Holland T. Jackson, M.D., Ft. Worth, Texas.

Doctor Richardson has been active in the General Practice organization both in his home state of Arkansas and in the American Academy. He has represented Arkansas in the Congress of Delegates of the Academy and was Chairman of the Board at the time of his election as President-Elect.

He has been a member of the Southern Medical Association since 1934 and has held several offices in that organization including: Secretary of the Section on General Practice in 1951, Chairman of that Section in 1952, a member of the Council, representing Arkansas in 1954 and Chairman of the Council at this time, having been elected to that position at the Miami Beach meeting last November.

Legislation Proposed For Rural Clinic Grants

Senators Payne (R., Me.) and Flanders (R., Vt.) are sponsoring an amendment to Hill-Burton to allow private, non-profit associations or corporations to get up to \$25,000 in federal funds on a matching basis for building and equipping diagnostic and treatment centers. Rural communities with population up to 15,000 would be eligible and the group need not be affiliated with a hospital as required for other Hill-Burton projects. The bill (*S. 3588*) was followed by one from Rep. Coffin (D., Me.) along similar lines. His bill, *H.R. 11826*, offers grants to a single town of not over 10,000 or a group of towns with no more than 15,000. One major difference with the Payne-Flanders bill is that in *H.R. 11826* the association or corporation would have to have a formal affiliation with a non-profit teaching hospital.

Oklahoma Association of House Staff Physicians to Meet May 23

The Fourth Annual Meeting of the Oklahoma House Staff Physicians will meet May 23 in the auditorium of the University of Oklahoma School of Medicine.

The purpose of the meeting is to stimulate research among the residents and interns and to give them an opportunity to present their work. Papers to be presented this year have been selected by a panel and an award will be given to the author of the best paper.

Two guest speakers for the meeting will judge the papers. Leonard F. Peltier, M.D., Ph.D., Professor of Surgery and Head of the Section of Orthopedic Surgery, University of Kansas Medical Center, Kansas City, Kansas, will speak on "Fat Embolism." Clinton Van Zandt Hawn, M.D., Pathologist-in-Chief at Mary Imogene Bassett Hospital, affiliate of Columbia University, Coopers-town, New York, will speak on "Histological and Surgiological Sequences in Experimental Hypersensitivity."

Survey Indicates Average of Five Visits a Year to Physician

Data from the National Health Survey, covering July-September of 1957, indicate residents of the United States see a physician at the rate of just under five visits a year, with only 10 per cent of the visits in the home. Other findings for the period:

Farm population used physician services at the rate of 3.6 visits per year, rural non-farm population 4.5 visits and urban population 5.1 visits. Two-thirds of all visits involved diagnosis and treatment, and only one-third preventive care or other services. Indications were that 18 per cent of all people in the United States had consulted a physician in the last month, based on answers to survey questions during the three months last summer.

Survey information is obtained from household interviews in a continuous probability sampling of the population. Interviews in the period were conducted in about 9,000 households, comprising 28,500 persons.

Oklahoman Is Chairman Of Health Manpower Task Force

Max M. Van Sandt, M.D., a Public Health Service medical officer, has been assigned to the Office of Defense Mobilization where he will serve as Chairman of the Health Manpower Task Force. Immediately prior to his appointment, Doctor Van Sandt had served as the director of the Federal Civil Defense Administration Health Office in Battle Creek, Michigan.

Doctor Van Sandt, a native of Wewoka, Oklahoma, is a graduate of the University of Michigan and received his medical degree at the University of Cincinnati in 1930. He has done postgraduate work at the Menninger Clinic, Michael Reese Hospital, Cincinnati General Hospital, the University of Oklahoma School of Medicine, Mayo Clinic, the Institute for Federal Hospital Administrators and the Walter Reed Army Medical Center.

New Ruling on Medical Deductions

Internal Revenue Service has clarified conditions under which expenses of travel, undertaken at a doctor's direction, may be deducted from taxable income. An elderly taxpayer, who was suffering from arteriosclerotic heart disease, had been advised by his doctor to go to a predetermined location where the temperature would be more suitable and where he could receive proper medical care. The physician also banned any further travel or sightseeing. Also, the physician advised the patient to have a nurse accompany him to administer the necessary injections and medications and to help him in and out of his wheelchair.

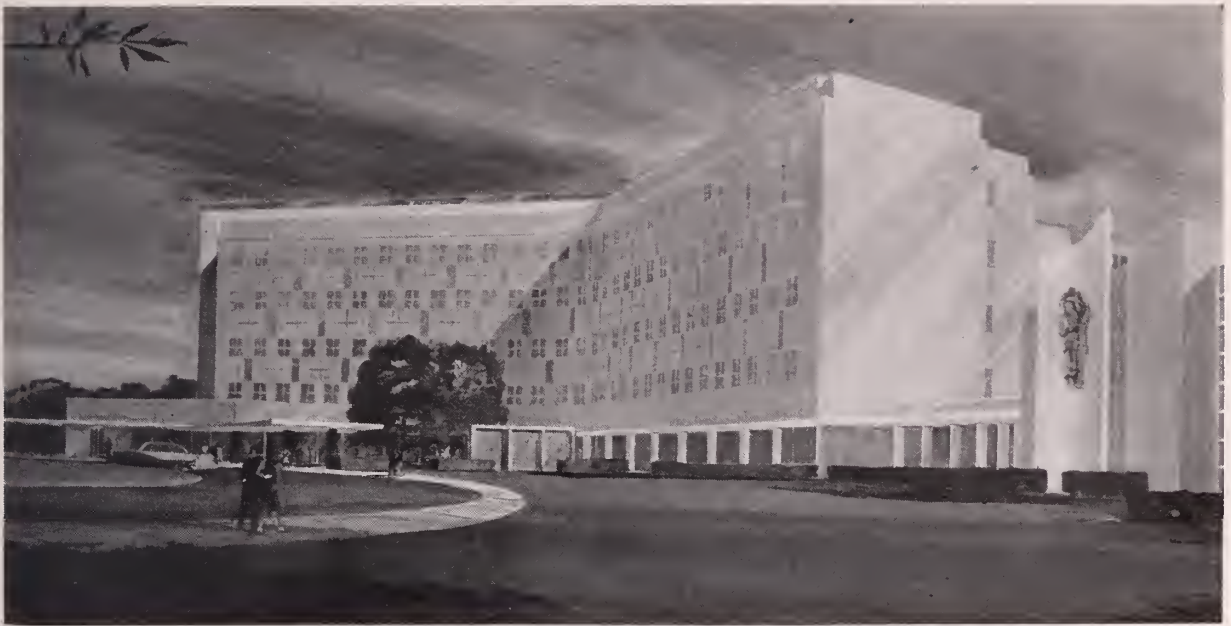
IRS ruled that because the travel was to alleviate specific ailments and was not for general improvement of health, the taxpayer was entitled to deduct his travel expenses and those of his nurse.

O.U. Medical School Alumni To Have

Reunion at A. M. A. Meeting

Attention, all O. U. Medical School Alumni! We're going to have a reunion at the American Medical Association meeting in San Francisco in June! This will be in the form of a cocktail party on Monday evening, June 23rd, from 6:00 to 8:00 p.m. in the Olympic Club, 524 Post Street, San Francisco. The cost will be \$4.00 per person, which will cover liquid refreshments and foods.

Advance registration through the local alumni office is desirable (825 N. E. 13th Street, Oklahoma City, phone FOrest 5-8331), but there will also be a booth near the registration desk in San Francisco where reservations for the party may be made.



New Tulsa Hospital Under Way

Pictured above is the architect's conception of the new eight million dollar St. Francis Hospital of Tulsa, for which official ground-breaking ceremonies were held on April 14th. At the same time it was announced that Harmon Construction Company of Oklahoma City would be general contractors for the project.

At the right may be seen the Chapel which will adjoin the first main unit of 295 beds. Construction on this phase of the project is expected to be completed in the Fall of 1959.

Long-range plans include a second unit of 295 beds, a convent, chaplain's quarters, and a medical research foundation.

The Hospital is being built by the William K. Warren Foundation of Tulsa, a non-profit institute created by gifts from Mr. William K. Warren, Tulsa oil executive and philanthropist, and Mrs. Warren.

The Hospital will be operated by a Roman Catholic Order, the Adorers of the Most Precious Blood of Wichita, Kansas.

SOCIAL SECURITY SAYS: "The following table shows the present tax rates and the scheduled increases: (on \$4,200 wage base)

<i>Calendar year</i>	<i>Employee</i>	<i>Employer</i>	<i>Self-Employed</i>
1956-----	2 %	2 %	3 %
1957-59-----	2¼ %	2¼ %	3¾ %
1960-64-----	2¾ %	2¾ %	4⅛ %
1965-69-----	3¼ %	3¼ %	4⅞ %
1970-74-----	3¾ %	3¾ %	5⅝ %
1975 and after-----	4¼ %	4¼ %	6⅜ %

In Other Words: A recent announcement stated that the Social Security system is in trouble. Benefit funds are melting as applications pour in at a rate in excess of Federal estimates. HEW Secretary M. H. Folsom was quick to say that expenditures may exceed income in 1959, but higher taxes in 1960 will cover the deficit. Check the chart above for proof that our children will be paying the bills for our benefits.

Prepared by the A.M.A.

Coming Meetings

Fourth Annual Meeting Oklahoma Association of House Staff Physicians*

Friday, May 23, 1958

Presiding: TED CLEMENS, M.D.

- 8:45 a.m. OPENING—*Earl Bricker, M.D.,* Chairman.
- 9:00 a.m. Intravenous Triglyceride Tolerance Test as a Measure of Triglyceride Clearance from the Serum—*Carl W. Smith, M.D.,* Oklahoma University Medical Center, Oklahoma City.
- 9:15 a.m. Long Term Follow Up of Surgical Treatment by Excision of Uncomplicated Fractures of the Radial Head—*Robert J. Cassidy, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 9:30 a.m. Fat Embolism—*Leonard F. Peltier, M.D., Ph.D.,* Professor of Surgery and Head, Section of Orthopedic Surgery, University of Kansas Medical Center
- 10:15 a.m. An Analysis of the Treatment of Congenital Dislocation of the Hip—*Chauncey H. Dobson, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 10:30 a.m. Intermission

Presiding: ROBERT W. DEAN, M.D.

- 10:45 a.m. Macrocephaly, Pseudopapilledema, and Multiple Hemangiomas; a New Genetically Transmitted Syndrome—*William R. Smith, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 11:00 a.m. The Immediate Gastric Effects of Paraminosalicylic Acid—*R. L. Carpenter, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 11:15 a.m. Successful Kidney Homotransplantation in Identical Twins with Preliminary Studies on Functional Capacity of Homotransplanted Kidney—*H. Earl Ginn, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 11:30 a.m. Pneumatosis Cystoides Intestinalis — *Robert Fagella, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 11:45 a.m. The Use of Chlorpropamide as an Oral Hypoclycemic Agent—*Carman Bloedow, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 12:00 p.m. The Problem of Massive Upper GI Hemorrhage with Particular Emphasis on Peptic Ulceration: A Review of Cases in the University Hospital during the Years 1948 through 1957—*Frank Howard, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 12:15 p.m. Luncheon

Presiding: WILLIAM F. EWING, M.D.

- 1:30 p.m. The Relation of Emotional State to

Renal Excretion of Fluids and Electrolytes in Patients with Congestive Heart Failure—*Robert N. Barnes, M.D.,* Oklahoma University Medical Center, Oklahoma City

- 1:45 p.m. Renal Blood Flow Determined by Use of Radioiodinated Serum Albumin and an Externally Placed Scintillation Detector—*Gunnar Sevelius, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 2:00 p.m. Histological and Serological Sequences in Experimental Hypersensitivity—*Clinton Van Zandt Hawn, M.D.,* Pathologist-in-Chief, Mary Imogene Bassett Hospital, Columbia University, Cooperstown, New York
- 2:45 p.m. Postpartum Hysterectomy: Five Year Survey—*Harold C. Wood, M.D.,* St. John's Hospital, Tulsa
- 3:00 p.m. Conditions Influencing Colonic Mucosal Blood Flow—*Jack D. Welsh, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 3:15 p.m. Intermission

Presiding: VAN HOWARD, M.D.

- 3:30 p.m. Technique of Exchange Transfusion and Results Obtained in Erythroblastosis Fetalis—*Leoncio Villarreal, M.D.,* St. John's Hospital, Tulsa
- 3:45 p.m. Homoplastic Tooth Transplantation Techniques in the Syrian Hamster—*C. Herman Reece, D.D.S.,* Oklahoma University Medical Center, Oklahoma City
- 4:00 p.m. Munchausen Syndrome — *Everett R. Rhoades, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 4:15 p.m. Psychodynamic and Psychophysiological Aspects of Pseudocyesis—*Phillip E. Green, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 4:30 p.m. Evaluation of 100 Partial Gastric Resections for Peptic Ulcerations of the Stomach and Duodenum—*A. Paul Compton, M.D.,* St. John's Hospital, Tulsa
- 4:45 a.m. Scalene Node Biopsy—*W. Lee Honska, M.D.,* and *Tom Johnson, M.D.,* Oklahoma University Medical Center, Oklahoma City
- 5:00 p.m. Difficulties in Differential Diagnosis Between Choriadenoma Destruens and Choriocarcinoma—*William E. Hood, Jr., M.D.,* St. Anthony Hospital, Oklahoma City

*Since the panel who selects the papers to be presented does not always know to whom credit should be given, omissions may have been made on the program. Many physicians have worked on these papers and will be given credit at the time of presentation.

**Postgraduate Division
UNIVERSITY OF OKLAHOMA MEDICAL CENTER
SHORT COURSE SERIES**

June 11—Surgery—Surgical Diagnosis and Problem Clinic.

The course is designed so physicians may attend four hours of formal instruction in the above field while spending only one-half day from their office. It is approved for credit by the Oklahoma Academy of General Practice.

Time 3:30 to 8:30 p.m.

Place: Room 120, Medical School Building.

Registration: \$3.50 per session; includes dinner, Hospital Cafeteria. Mail registration to office of Postgraduate Instruction.

**HILLCREST MEDICAL CENTER
1653 East 12th St., Tulsa, Okla.**

May 27—Basic GI Physiology, J. W. H. Smith, Lecturer.

June 10—Physiological Basis of Liver Function Tests, E. G. Larsen, Lecturer.

June 24—Alimentary Reserve: the malabsorption syndrome, J. W. H. Smith, Lecturer.

**AMERICAN BOARD OF OBSTETRICS AND
GYNECOLOGY**

Applications for certification (American Board of Obstetrics and Gynecology), new and reopened, Part I, and requests for re-examination Part II, are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of application is September 1, 1958. No applications can be accepted after that date.

Candidates for admission to the Examinations are required to submit with their application, an unbound 8½ x 11 typewritten list of all patients admitted to the hospitals where they practice, for the year preceding their application, or the year prior to their request for reopening of their application.

Current Bulletins outlining present requirements may be obtained by writing to the Secretary's office: Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

**NINTH SEMINAR ON THE WORLD HEALTH
ORGANIZATION**

Minneapolis, Minnesota May 24-June 4, 1958

The Ninth Seminar on the World Health Organization will meet simultaneously with the Eleventh World Health Assembly in Minneapolis from May 26 to June 4, 1958. Speakers for this seminar will be either officials from WHO regional offices or medical researchers qualified to report on the newest developments in their fields.

Applications should be addressed to: Committee on General Arrangements For WFUNA-WHO Seminar on World Health, 2808 West River Road, Minneapolis 6, Minnesota.

**UNIVERSITY OF COLORADO MEDICAL CENTER
1958 Postgraduate Courses
Denver, Colorado**

THERAPEUTIC EXERCISE*

May 8-9, 1958

A postgraduate course for the Physical therapist and the Occupational therapist will be sponsored by the Department of Physical Medicine and Rehabilitation and the Office of Postgraduate Medical Education May 8-9, 1958 at the University of Colorado Medical Center.

CLINICAL HEMATOLOGY*

June 16-21, 1958

Matthew Block, Ph.D., M.D., Associate Professor of Medicine and Kurt N. von Kaulla, M.D. will direct a course in Clinical Hematology for Internists and Pathologists at the University of Colorado Medical Center, June 16-21, 1958. Registration is limited to 12 students and the fee is \$100.

DERMATOLOGY FOR GENERAL PRACTITIONERS*
July 10, 11, 12, 1958

A postgraduate refresher course in Dermatology for General Practitioners will be held at the Colorado General Hospital and Fitzsimons Army Hospital, July 10, 11, 12, 1958.

**THE PREVENTION AND MANAGEMENT OF
ATHLETIC INJURIES***

August 25, 26, 27, 1958—Denver, Colorado

Don H. O'Donoghue, M.D., Orthopedic Consultant, University of Oklahoma; Thomas B. Quigley, M.D., Assistant Clinical Professor of Surgery, Harvard Medical School; Joseph P. Dolan, Ph.D., Research Professor of Physical Education, North East Missouri State Teachers College; Kenneth Rawlinson, Chief Trainer, University of Oklahoma and Jack Rockwell, Chief Trainer, University of Colorado will be speakers for this program.

*For detailed program and further information, write to: The Office of Postgraduate Medical Education, The University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

AMERICAN GOITER ASSOCIATION

San Francisco, California

June 17, 18, 19, 1958

The 1958 meeting of the American Goiter Association will be held in the St. Francis Hotel, San Francisco, California, June 17, 18 and 19, 1958. The program for the three day meeting will consist of papers and discussions dealing with the physiology and diseases of the thyroid gland.

Hotel reservations must be secured by writing to Goiter Housing Bureau, Room 300, 61 Grove Street, San Francisco, California and be accompanied by a deposit of \$10.00 per room.

Organization News

Six Oklahoma Physicians To Participate in A.M.A. Meeting

Six Oklahoma physicians will participate in the 107th annual meeting of the American Medical Association June 23-27 in San Francisco. Those participating and their subjects will be: Don H. O'Donoghue, M.D., Oklahoma City, "Indications for Surgical Treatment of Ligament Injuries of the Knee" in the Symposium on Sports and Sport Injuries, Section on Miscellaneous Topics, June 26; Louis J. West, M.D., Oklahoma City, "Sleep Deprivation" in Section on Nervous and Mental Diseases, June 25; Herbert Kent, M.D., Oklahoma City, "Rehabilitation Potential in Quadriplegic Teenagers" in Section on Physical Medicine, June 25; and Jean S. Felton, M.D., Oklahoma City, "Hospital Employees: Corridor Consultations or Health Maintenance?" in the Symposium on Occupational Medicine for the Private Practitioner, Section on Preventive Medicine, June 24.

Also participating will be: Stewart Wolf, M.D., Oklahoma City, motion picture on "Human Gastric Function" in Motion Picture Program and Leo Lowbeer, M.D., Tulsa, exhibit on "The Pathology of Brucellic Osteomyelitis" in Section on Pathology and Physiology, Section Exhibits.

Meeting to Draw 15,000 Physicians

This convention is the largest medical meeting in the world, attracting 15,000 physicians. It offers an opportunity for doctors to catch up on hundreds of aspects of rapidly-changing medical knowledge. Five hundred doctors will present scientific papers or participate in symposiums and discussion groups.

There will be 325 scientific exhibits in the San Francisco Civic Auditorium. In addition, 285 technical exhibits will be displayed in the new Plaza Exhibit Hall by pharmaceutical houses, medical equipment firms, and other manufacturers.

The House of Delegates, the A.M.A.'s policy-making body, will meet throughout the week in the Sheraton-Palace Hotel, headquarters for the meeting. Scientific sessions will be held in the auditorium, other rooms of the Civic Center, and some hotels.

Medical color television programs will emanate from San Francisco Hospital. A special event will be the premiere showing of a motion picture on traumatic neuroses made by the A.M.A. and the American Bar Association. The third in a series dealing with the medicolegal problems, the movie will be shown Wednesday evening at the Sheraton-Palace.

Another special feature will be a 90-minute closed circuit television Grand Rounds, also on Wednesday evening. Part of it will cover the highlights of the meeting and the rest will deal with diabetes. The latter part will emanate from the University of California School of Medicine. It will be viewed by physicians in Boston, Chicago, Cleveland, Kalamazoo, Philadelphia, New York, and Syracuse.

The scientific session will open Monday afternoon with a panel discussion on the management of the severely injured patient. Tuesday morning's session will be a general review of the hazards of certain therapeutic agents. The winner of the Goldberger Award, given annually by the A.M.A. for outstanding achievement in the field of clinical nutrition, will speak at noon Tuesday.

In addition to awarding the Goldberger medal Monday at its opening session, the House of Delegates will also elect a physician to receive one of medicine's highest honors, the Distinguished Service Award.

David B. Allman, M.D., Atlantic City, N.J., retiring president of the A.M.A., and his successor, Gunnar A. Gunderson, M.D., LaCrosse, Wis., will address the opening session of the house. Dr. Gunderson will be inaugurated Tuesday evening.



E. C. Mohler, M.D., Ponca City, incoming President of the OSMA, addresses recent Doctor-Lawyer meeting in Cushing. Pictured left to right, Clifford M. Bassett, M.D., Cushing, Mohler, Robert D. Looney, Oklahoma City, and Sterling Grubbs, Cushing.

Oklahoma State Future Nurses' Day Held in Tulsa

The second annual meeting of the Oklahoma State Future Nurses' Day was held in the Edison High School, Tulsa, April 5, 1958. The day-long program was planned around the theme "Hands to Serve."

Ben H. Nicholson, M.D., Oklahoma City, Editor of *The Journal* of the Oklahoma State Medical Association gave the main address which was entitled "Hands to Serve." Others on the program were James Maxwell, Mayor-elect of Tulsa, Mrs. John Powers Wolff, president of the Auxiliary to the Oklahoma State Medical Association; and Mrs. Rhobia Taylor, field consultant for the National League for Nursing.

A motion picture, "My Cap Is My Crown" was shown. Among other features of the day were a style show by student nurses and a play presented by the Oklahoma Students Nursing Association which dramatized students in nurses training.

The Tulsa event was sponsored jointly by the Auxiliary to the Oklahoma State Medical Association, the Oklahoma League for Nursing and the Oklahoma State Nursing Association.

Payne-Pawnee Society Holds Doctor-Lawyer Dinner

The Payne-Pawnee County Medical Society and members of the respective Bar Associations met for dinner at the Cushing Hotel on April 10. It was the second annual meeting of the combined groups, the purpose of which is to develop a better appreciation of the problems of each profession.

Principal speaker of the evening was attorney Robert D. Looney of Oklahoma City. Mr. Looney of the Oklahoma Bar Association's Medical Liaison Committee, delivered a talk, "The Great Divorce," which pointed out that lack of mutual understanding between the two professions was largely responsible for recent depreciation of inter-professional relations.

Following Mr. Looney, E. C. Mohler, M.D., the President-Elect of the Oklahoma State Medical Association, brought official greetings to the group and endorsed efforts to strengthen harmonious relations between the two professions.

The dinner was preceded by a social hour, also held at the Cushing Hotel. Local arrangements for the meeting were handled by Clifford M. Bassett, M.D.

Two Civil Defense Programs Scheduled in San Francisco

Two medical civil defense meetings will be held in San Francisco immediately preceding the American Medical Association's 107th Annual Meeting. On June 19-20, the 12th Naval District will sponsor a symposium on "Medical Problems of Modern Warfare and Civil Defense" at the U.S. Naval Radiological Defense Laboratory, and on June 21 the A.M.A.'s Council on National Defense will sponsor its 6th Annual National Medical Civil Defense Conference in the Sheraton-Palace Hotel. Doctor David B. Allman, A.M.A. president, and Frank W. Barton, secretary, A.M.A. Council on National Defense, will speak at the Naval symposium on the plan and activities of organized medicine for medical preparedness in disasters or in the event of all-out war.

Reiff Represents State

William H. Reiff, M.D., Oklahoma City physician, will represent Oklahoma when he speaks, June 21 at the Council on National Defense. Welcoming the participants to this meeting will be Doctor Gunnar Gundersen, A.M.A. president-elect. The current federal civil defense program, including the national plan for mobilization of resources (personnel, facilities, supplies) will be outlined during the morning session by officials of federal governmental agencies involved. Also scheduled for the morning session will be a discussion of the threat and impact of newer weapons and delivery systems by an outstanding military planner, and a report on the legislative program now pending before congress for a national survival plan by the Hon. Chet Holifield, U.S. congressman, 19th district of California.

During the afternoon, the Surgeons-General of the Army, Navy, Air Force and Public Health Service will discuss the civil defense role and responsibilities of civilian physicians. Two other subjects to be covered include the radioactive fall-out problem and the feasibility of a national shelter program.

All physicians interested in civil defense planning are urged to attend these two worthwhile meetings.

Two Standard Insurance Forms Developed by Insurance Committee

The Insurance Committee of the Oklahoma State Medical Association recently announced the development of a revised version of the OSMA Standard Insurance Reporting Form and also released a Standard Physicians Statement Form, a new product of their standardization efforts.

A sub-committee, under the leadership of Clayton E. Woodard, M.D., Drumright, was asked to review the inequities of the standard reporting form initiated by the committee on December 1, 1956. Although the original form was generally accepted by most insurance companies and physicians, there was enough valid criticism to prompt further refinement.

A national standardized claim form has been sorely needed for many years, not only for physicians, but also for hospitals and the insured. The Health Insurance Council has had two "approved" forms for a number of years; one for individual insurance claims and one for group insurance claims. These forms, which are for physicians only, are on a legal size paper and allow any insurance company which might adopt them so many options that the goal of standardization has not been reached. The Council forms have been little used on a local basis and they are generally unacceptable nationally.

Doctor Woodard's sub-committee felt that the real need could be met only by developing a single claim form that could be used by the physician, hospital and the insured and also which would be acceptable for either group or individual claims. Since group claims ordinarily call for less information than individual claims, it was felt that satisfaction of the requirements for the individual claim would also suffice for the group type.

The sub-committee further defined the problem by recognizing that the claim form should be one that could be utilized for reporting all types of care, such as surgery, medical treatment, laboratory, accident and pregnancy; whether treated at home, office, clinic or hospital. It should be a form which can be utilized for reporting disability and/

or time off from work, if that is all that is needed. The utility of the ideal form should not be limited to general practice or, for that matter, to any speciality group; it should be flexible enough to provide for all medical care claims, including tissue examinations or any other laboratory procedure which may be covered by the policy.

With these factors in mind, the sub-committee met numerous times with representatives of the Association of Health and Accident Insurors of Oklahoma and the Oklahoma Hospital Association as well as with its parent committee. A standard claim form was subsequently developed which will satisfy the needs of the physician, hospital and insured on a single sheet of 8½" x 11" paper that conforms to standard filing cabinets. The physician attaches his itemized statement to the claim form and the hospital may also attach their statement if they do not elect to complete the standard form.

Advantages Outlined

Doctor Woodard pointed out the advantages of the new form as follows:

1. It has been formally endorsed by the Association of Health and Accident Insurors of Oklahoma and is expected to be approved by all companies licensed in Oklahoma.

2. All necessary information can be given on two sheets of paper, one of which will be the physician's statement.

3. It is adaptable to standard filing facilities.

4. Each item is numbered to facilitate the dictation of reports. The easily-provided information, on a standardized basis, will be sufficient to settle most claims without further correspondence and result in less paperwork for the physician.

5. The format is such that a double-space typewriter setting will automatically match each item line on the form and save secretarial time.

6. There is no need to complete the section regarding disability unless the patient indicates loss of time benefits in his section.

7. An authorization for the insurance company to pay directly to the physician is provided.

Option to Review Records

Item number 18 has been inserted to save the physician time and trouble at a later date. Many hospitals will refuse to expose the case records of contested or questioned claims without the attending physician's approval. It is then necessary for the insurance company to contact the physician, frequently in his office, in order to gain consent. Consequently, this provision gives the physician an option, at the time of filing the claim, regarding the authorization to review case records.

90 Per Cent Acceptable

All of the insurance companies that participated in the formation of the new claim form have agreed that the information asked is sufficient to settle at least 90 per cent of the claims without further correspondence. Prompt settlement of the claim and accompanying patient-goodwill may be achieved by completing each item on the form as requested. The Insurance Committee urges 100 per cent physician-utilization of the new form in order to insure the success of the simplification program. Insurance companies who refuse to accept the form should be reported to the committee so that follow-up coordination may be initiated.

It was pointed out by Doctor Woodard that the new form does not replace large group claim forms from companies such as Metropolitan, Aetna and Blue Shield. Their forms are already simple to complete and generally acceptable. The sub-committee is hopeful, however, that if the new form were submitted for a group claim, the company would accept it for proof of loss.

Standard Statement Offered

A second new form is OSMA Form 102, which is the statement for services rendered. It will require a minimum of time and effort to complete and is as simple as the popular Blue Shield statement. The insurance companies comprising the membership of the Association of Health and Accident Insurors have indicated their acceptance of the new statement form.

Although the member companies of the local insurance association have adopted the standard reporting form, it will still be nec-

STANDARD CLAIM FORM

APPROVED BY THE OKLAHOMA STATE MEDICAL ASSOCIATION AND THE ASSOCIATION OF HEALTH AND ACCIDENT INSURORS OF OKLAHOMA

INSURANCE COMPANY	ADDRESS
TO:	

ATTENDING PHYSICIAN'S REPORT

1. PATIENT'S NAME	2. ADDRESS	3. AGE
4. DIAGNOSIS (EXPLAIN COMPLICATIONS)		
5. ADDITIONAL DIAGNOSES (CHRONIC DISEASE OR DEFECT FOUND DURING PRESENT TREATMENT)		
6. DATE OF ONSET	7. DATE FIRST CONSULTED	8. DUE TO PREGNANCY <input type="checkbox"/> YES <input type="checkbox"/> NO
		9. COMPENSATION CASE <input type="checkbox"/> YES <input type="checkbox"/> NO
10. WHEN, IN YOUR OPINION DID THE PATIENT FIRST BECOME AWARE OF SOME SYMPTOM OF THIS CONDITION?		
11. SURGICAL OR OBSTETRICAL PROCEDURES (DESCRIBE)		
12. IF HOSPITALIZED, NAME AND ADDRESS OF HOSPITAL		13. DATE ADMITTED
		14. DATE DISCHARGED
15. NAME AND ADDRESS OF OTHER PHYSICIANS WHO HAVE TREATED PATIENT FOR THIS ILLNESS OR INJURY		

COMPLETE IF PATIENT HAS INDICATED LOSS OF TIME BENEFITS

AUTHORIZATION TO PAY PHYSICIAN

16. TOTAL DISABILITY:	
FROM _____	TO _____
17. PARTIAL DISABILITY:	
FROM _____	TO _____
FROM _____	TO _____

I HEREBY AUTHORIZE PAYMENT DIRECTLY TO THE ATTENDING PHYSICIAN FOR THIS ILLNESS OR INJURY, OF THE PHYSICIAN'S OR SURGEON'S BENEFITS OTHERWISE PAYABLE TO ME, BUT NOT TO EXCEED MY INDEBTEDNESS TO SAID PHYSICIAN. I UNDERSTAND I AM FINANCIALLY RESPONSIBLE TO THE PHYSICIAN FOR CHARGES NOT COVERED BY THIS ASSIGNMENT.

DATE _____ SIGNED _____ (INSURED)

18. THE HOSPITAL ☐ IS ☐ IS NOT AUTHORIZED TO FURNISH, WITH THE INSURED'S CONSENT, ANY INFORMATION REGARDING THIS CLAIM, REQUESTED BY THE _____ INSURANCE COMPANY

DATE _____ SIGNED _____ PHYSICIAN _____ DEGREE _____

ADDRESS _____ STREET _____ CITY AND STATE _____

NOTE TO PHYSICIAN: PLEASE SUBMIT YOUR ITEMIZED STATEMENT FOR THIS CLAIM. OKLAHOMA PHYSICIANS MAY USE OSMA FORM 102.

INSURED'S STATEMENT

TO BE COMPLETED PERSONALLY BY THE INSURED
YOUR DOCTOR OR HOSPITAL IS NOT RESPONSIBLE FOR COMPLETION

POLICY NO _____ CLAIM NO _____

NAME	AGE	ADDRESS
1. IF ACCIDENT: GIVE DATE		DESCRIBE HOW AND WHERE IT HAPPENED
2. IF SICKNESS: GIVE NATURE OF COMPLAINTS		
3. DATE YOU FIRST NOTICED SYMPTOMS OR REALIZED YOU WERE GETTING SICK		4. DATE FIRST SAW A DOCTOR
5. HAVE YOU HAD SYMPTOMS OR TREATMENT FOR THIS SICKNESS BEFORE		6. WHEN?
7. MEDICAL TREATMENT RECEIVED DURING LAST TWO YEARS		
(SICKNESS)	(DOCTOR)	(YEAR)
8. ARE YOU MAKING A CLAIM FOR LOSS OF TIME? <input type="checkbox"/> YES <input type="checkbox"/> NO		
IF "YES": DATE FIRST STOPPED WORK:		FIRST DATE RETURNED TO WORK:

AUTHORIZATION

I HEREBY AUTHORIZE ANY HOSPITAL OR PHYSICIAN TO FURNISH TO THE _____ INSURANCE COMPANY OR ITS REPRESENTATIVE OR PERMIT SAID INSURANCE COMPANY OR ITS REPRESENTATIVE TO REVIEW ANY INFORMATION REQUESTED WITH RESPECT TO ANY ILLNESS OR ACCIDENT, MEDICAL HISTORY OR COPIES OF HOSPITAL AND MEDICAL RECORDS. A PHOTOSTATIC COPY OF THIS AUTHORIZATION SHALL BE CONSIDERED AS VALID AS THE ORIGINAL. I DECLARE THE ABOVE ANSWERS AND STATEMENTS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE _____ SIGNED _____ INSURED

FORM OSMA 101

essary for physicians to maintain their own stock of these forms in addition to the new statement form.

Both the claim form and statement form will be available, on a mail order basis, from

the Transcript Company, Box 191, Norman, Oklahoma. Prices for the claim form (OSMA Form 101) are: 70 cents for a pad of 50, \$1.95 for three pads, \$3.75 for six pads and \$6.60 for twelve pads. The state-

STATEMENT FOR PROFESSIONAL SERVICES RENDERED

APPROVED BY THE OKLAHOMA STATE MEDICAL ASSOCIATION

PHYSICIAN'S NAME	PATIENT'S NAME
ADDRESS	

COMPLETE FOR MEDICAL CARE ONLY: AT HOSPITAL, HOME, OR OFFICE

GIVE THE DATES OF TREATMENT BY INSERTING MONTH AND YEAR. INDICATE EACH DAY'S TREATMENT BY USING THE FOLLOWING CODE:
H—HOSPITAL V—HOME O—OFFICE OR CLINIC

MONTH AND YEAR	DAYS OF MONTH																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		

PLEASE STATE YOUR USUAL FEE FOR

HOSPITAL VISIT	HOME VISIT	OFFICE VISIT
\$	\$	\$

TOTAL CHARGES FOR ALL
TREATMENTS SHOWN ABOVE

\$

COMPLETE FOR ALL OTHER TYPE CARE: SURGERY, OBSTETRICS, ANESTHESIA, X-RAYS, LABORATORY, OR OTHER SPECIAL FEES.
PLEASE DESCRIBE IN ITEMIZED MANNER.

DATE	DESCRIPTION	CHARGE
		\$

OSMA FORM 102

SIGNED _____
PHYSICIAN _____ DEGREE _____

THIS PORTION MAY BE DETACHED: NOTE TO PHYSICIANS:

IF ANY OF THE FOLLOWING PROCEDURES ARE INVOLVED, IT WILL BE VERY HELPFUL TO THE INSURANCE COMPANY, IN DETERMINING THE PROPER BENEFIT, IF THE INFORMATION REQUESTED BELOW IS INCLUDED.

1. SURGICAL CASES: DESCRIBE OPERATION, I.E., IF HYSTERECTOMY, INDICATE IF TOTAL OR SUB-TOTAL.
2. OBSTETRICAL CASES: STATE WHETHER NORMAL DELIVERY, CESAPIAN SECTION, OR MISCARRIAGE. IF MISCARRIAGE, GIVE GESTATION TIME AND WHETHER D&C PERFORMED.
3. ORTHOPEDIC CASES: SITE INVOLVED. STATE WHETHER FRACTURED, DISLOCATED OR DISEASED. IN FRACTURES, STATE TYPE OF FRACTURE, WHETHER DISPLACED OR NOT, AND WHETHER REDUCTION WAS OPEN OR CLOSED METHOD.
4. BURN CASES: DESCRIBE LOCATION, EXTENT AND DEGREE. STATE WHETHER SKIN-GRAFTED OR NOT.
5. LACERATIONS: DESCRIBE LOCATION, SIZE, DEPTH AND APPROXIMATE NUMBER OF SUTURES.
6. X-RAYS: STATE IF ACCIDENT CASE. GIVE SITE OF X-RAYS.
7. ANESTHESIA: STATE WHETHER GENERAL, SPINAL, CAUDAL OR LOCAL.

ment form (OSMA Form 102) may be purchased for 80 cents for one pad, \$2.25 for

three pads, \$4.35 for six pads and \$7.80 for
(Continued on Page 286)

Low
Dosage

KYN

for

G.U.

Infections

Unusual Antibacterial and Anti-infective Properties. More rapid absorption . . . higher and better sustained plasma concentrations . . . more soluble in acid urine than other sulfonamides . . . freedom from crystal-luria and absence of significant accumulation of drug, even in patients with azotemia. ¹

Unprecedented Low Dosage. Less sulfa for the kidney to cope with . . . yet fully effective. A single daily dose of 0.5 to 1.0 Gm. (1 to 2 tablets) maintains higher plasma levels than 4 to 6 Gm. daily of other sulfonamides—a notable asset in prolonged therapy. ²

New Control Over Sulfonamide-sensitive Organisms. KYNEX maintains the prolonged, high tissue concentrations of primary importance in treatment of urinary infections . . . a therapeutic asset toward preventing manifest pyelonephritis as a complication of persistent bacteriuria during pregnancy and puerperium. Maintenance of sterile urine in such patients was accomplished with 1 tablet of KYNEX daily. ³



Sulfamethoxypyridazine Lederle



Dosage: The recommended adult dose is 1 Gm. (2 tablets) the first day, followed by 0.5 Gm. (1 tablet) every day thereafter, or 1 Gm. every other day for mild to moderate infections. In severe infections where prompt, high blood levels are indicated, the initial dose should be 2 Gm. followed by 0.5 Gm. every 24 hours. Dosage in children, according to weight; i.e., a 40 lb. child should receive $\frac{1}{4}$ of the adult dosage. It is recommended that these dosages not be exceeded.

KYNEX — WHEREVER SULFA THERAPY IS INDICATED

Tablets: Each tablet contains 0.5 Gm. ($7\frac{1}{2}$ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

Syrup: Each teaspoonful (5 cc.) of caramel-flavored syrup contains 250 mg. of sulfamethoxypyridazine. Bottle of 4 fl. oz.

References: 1. Griebble, H. C. and Jackson, G. G.: Prolonged Treatment of Urinary-Tract Infections with Sulfamethoxypyridazine. *New England J. Med.* 258:1-7, 1958. 2. Editorial *New England J. Med.* 258:48-49, 1958. 3. Jones, W. F., Jr. and Finland, M., Sulfamethoxypyridazine and Sulfachloropyridazine. *Ann. New York Acad. Sc.* 60:473-483, 1957.

*Reg. U. S. Pat. Off.



LEDERLE LABORATORIES
a Division of
AMERICAN CYANAMID COMPANY
Pearl River, New York



Regional Meeting of the American Heart Association Held in Tulsa

Advances in heart research were discussed recently by Robert W. Wilkins, M.D., (left) of Boston, Massachusetts, president of the American Heart Association, and E. C. Mohler, M.D., (right) president-elect of the Oklahoma State Medical Association. The occasion was a nine state West Central Regional meeting of the American Heart Association held in Tulsa. Doctor Mohler attended the meeting in his dual capacity of Oklahoma Medical Association president-elect and a member of the Executive Committee of the Oklahoma State Heart Association.

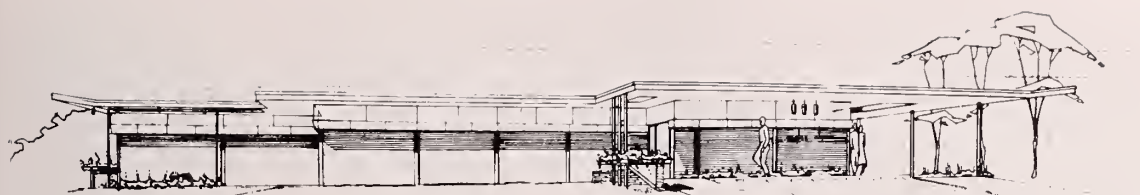
Two Standard Insurance Forms

(Continued from Page 283)

twelve pads. An advertisement and order blank appear on page 293.

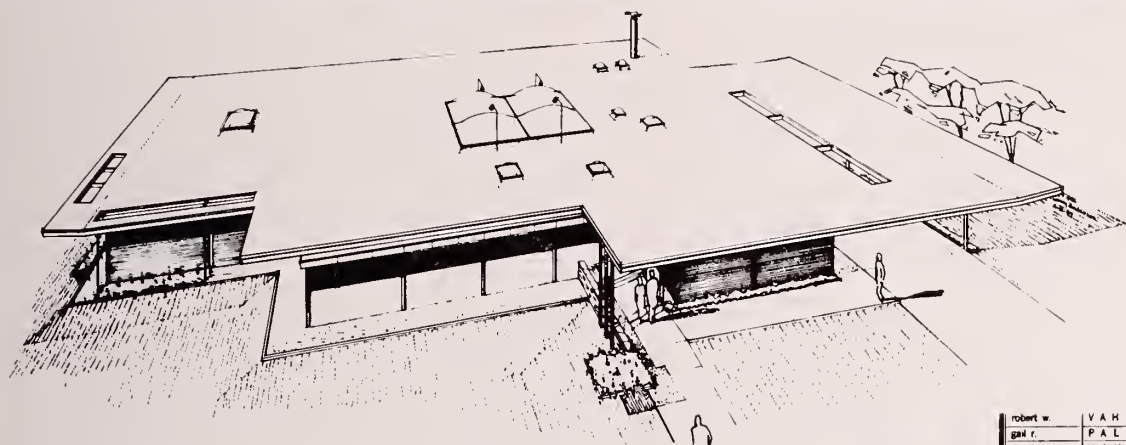
Doctor Woodard pointed out that physicians may continue to use previously accepted standard claim forms until their stock is depleted. The insurance companies who helped develop the new forms have indicated that they will continue to accept the old forms until the supply is exhausted.

"Members of the organizations who collaborated in the development of these forms are hopeful that their efforts will make Oklahoma the pace-setter in the adoption and general acceptance of a national standard claim form," Doctor Woodard reported. "Copies of Oklahoma's solution to the claim form problem will be mailed to major insurance companies in the United States as well as to the Health Insurance Council and the American Medical Association," he added.



ENGLES CLINIC

DURANT, OKLAHOMA



robert w.	VAHLBERG
gail r.	PALMER &
c. julian	VAHLBERG
ARCHITECTS	AIA, AIAA, AIAA
1958-1959	1958-1959

New Engles Clinic Is Opened in Durant

The new \$75,000 Engles Clinic in Durant was formally opened on Sunday, April 13. The modernistic building is constructed of dark red brick. A continuous strip of glass joins wall and roof. The sliding doors are of birch paneling mounted on aluminum frames and are so constructed that they can be dismantled and the panels replaced should a change in atmosphere be desired.

The building houses three suites of offices with consultation room and two treatment rooms in each suite. In addition, there is an emergency room for minor surgery and for x-ray and laboratory work. The east wing of the building houses a separate pediatric and obstetrics waiting room.

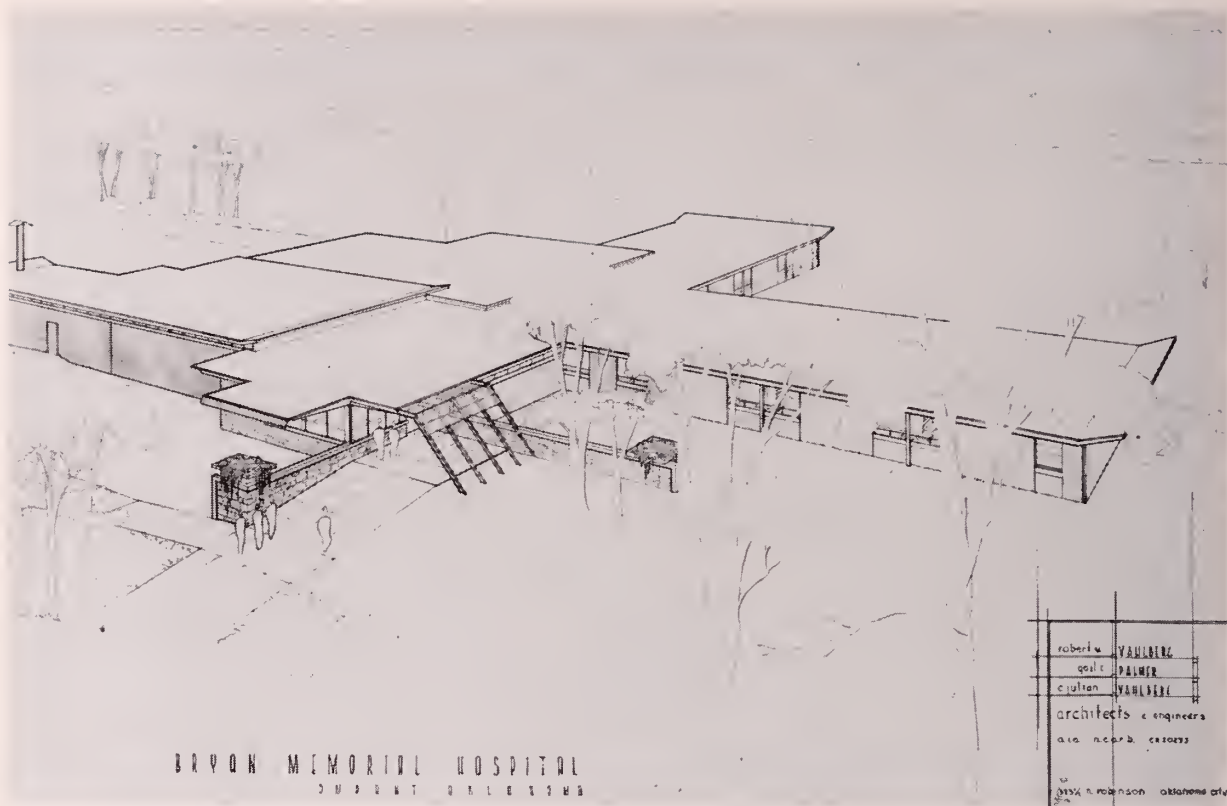
Taking full advantage of the beauties of nature, a cherry laurel tree highlights an interior court around which the offices and examining rooms are built. Overhead is a

huge plastic sky dome which provides natural lighting for the rock garden. It is one of three natural beauty spots featured in the structure. An exterior court is located just east of the pediatric and obstetrics waiting room.

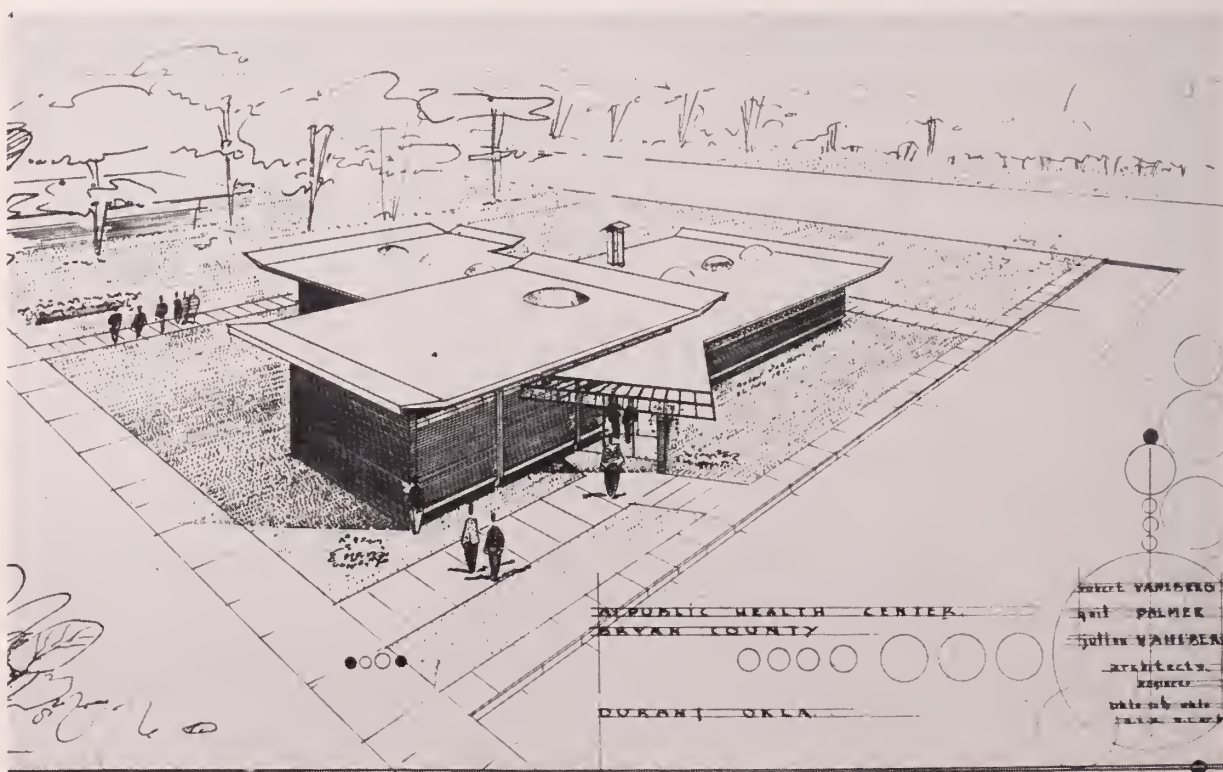
Floors of the building are of asphalt tile. Recessed fluorescent lighting fixtures supplement the natural light which is provided by the glass strip. Primary colors are used for a color scheme for the interior of the building. The central heating and air conditioning are installed with underground ducts. An intercommunications system is installed in all offices.

LeRoy Engles, M.D., Robert Engles, M.D., and Estelle Engles, M.D., have offices in the clinic.

Architects for the building were Vahlberg, Palmer, and Vahlberg, Oklahoma City.



BRYAN MEMORIAL HOSPITAL



BRYAN COUNTY HEALTH CENTER

Bryan Memorial Hospital and County Health Unit Opened in Durant

Climaxing an eight-year effort to obtain expanded medical facilities for southeastern Oklahoma, the Bryan Memorial Hospital and county health unit was opened April 12. The \$700,000 structures were paid for by a bond issue and matching federal money. Both structures are pictured on the facing page.

The hospital is, roughly, "X" shaped, with most of one side filled in. The entire structure is on one level with exception of a semi-submerged mechanical room containing boilers, air conditioning machinery, blowers, electrical control panels and a stand-by electrical generator.

The most striking feature of the new buildings is the variety of colors used throughout. Soft pastels to bright scarlets can be found on the interior where 34 different shades of paint were used.

The two patient wings have a total of 22 rooms, each with a plug-in outlet from the central oxygen supply. Telephones are installed in each room and most of the rooms have built-in television sets, complete with bedside remote controls. Charges for the rooms will range from \$8.50 to \$14.00 per day.

The health unit consists of examining rooms, nurses' work room, X-ray room, storage room, a room which will be used for a laboratory when equipment is available, records room, offices for the staff and a conference room.

The brick structures have pagoda type roofs and are equipped with central heating and air conditioning. Both buildings were designed by Vahlberg, Palmer and Vahlberg, Oklahoma City architects.

Sixteen Make Hall of Fame

Sixteen laymen were recently inducted into the newly-formed Oklahoma Medical Sciences Hall of Fame. Created by the University of Oklahoma Medical School Alumni Association, the Hall of Fame will exist for the sole purpose of honoring Oklahoma Citizens, other than members of the medical and allied professions, who have contributed much to the advancement of medical sciences and medical movements of a progressive nature.

Ceremonies were held at the Oklahoma Medical Research Foundation. A. B. Smith, M.D., Stillwater, President of the Alumni Association, presented the awards to the group. Photographs of those honored will be hung in the passageway connecting the Research Foundation and the Medical School.

According to Carl H. Bailey, M.D., Stroud, President-Elect of the group, only a few such awards will be added to the roster each subsequent year.

Recipients of the award were: John Rogers, Tulsa attorney; William K. Warren,

AMA Pamphlet on Driver Fitness

Before taking the wheel, every driver should check to make sure that he's fit to drive. Under certain circumstances—outlined in a new American Medical Association pamphlet—a driver can be a dangerous hazard on the road. "Are You Fit to Drive?" urges drivers to contact their physicians if they are in doubt about their fitness.

For distribution through physicians' offices, the booklet currently is available from the Association of Casualty and Surety Companies, 60 John Street, New York 38, N.Y. Price is \$4.60 per 100 copies, regardless of quantity.

Tulsa oilman; Mrs. Rose S. Woodworth, Ardmore; Rep. James M. Bullard, Duncan; Dr. George L. Cross, president of the University of Oklahoma, Norman; Ancel Earp, Oklahoma City insurance man; Governor Raymond Gary, Madill; Sen. Roy E. Grantham, Ponca City; Paul Harkey, Oklahoma City attorney; Jim Lookabaugh, state commissioner of public safety, Oklahoma City and Dean A. McGee, Oklahoma City oilman.



Articles published in *The Journal* of the Oklahoma State Medical Association May, 1933.

SOME PROCTOLOGIC PROBLEMS

Curtice Rosser, M.D., F.A.C.S.

Professor of Proctology,

Baylor University College of Medicine, Dallas, Texas

. . . Essential Surgery in Chronic Ulcerative Colitis

"The management of a widespread, disabling, often fatal disease, chronic ulcerative colitis has been in the last ten years almost entirely relegated to the realm of medical treatment. Two factors conspired to bring this about. The mortality following operative interference in the past had been unusually high, due to the fact that surgeons did not understand the extreme permeability of a bowel carrying this infection and attempted to explore all cases, peritonitis frequently resulted from trauma, and to the fact that the preoperative and post operative preparation was not properly emphasized. When the announcement was made that the disease was due to specific organisms and that vaccines and sera made from these organisms would cure the condition, the surgeon was glad to relinquish his attempts to combat the situation by radical means, and for ten years had waited patiently to see the outcome of purely medical measures.

"Four definite etiological agents have been postulated by different groups of observers and each group seems equally convinced of the adequateness of their explanation and the complete efficacy of measures based on it. One group has claimed that all cases are due to amebae. In England and Canada the theory that the disease is related to bacillary dysentery has gained foothold, anti-dysentery serum being used. It has also been postulated that chronic ulcerative colitis was primarily due to an avitaminosis.

"Unquestionably the most popular theory in this country is that first enunciated by Bagen in 1924, that the disease is the result of infection of the colon with a specific streptococcus and that vaccines and sera from this organism are largely curative.

"It would appear that regardless of the final outcome of the discussion concerning the specificity of any etiological agent, and granting the value of recent discoveries, the result of treatment by present methods are nevertheless unsatisfactory. Surgical measures which have been in a large part held in abeyance have a wide field of usefulness which should be utilized. Such surgical procedures, which can be held to a lower mortality by proper application of new information concerning the pathology present will be useful in three ways; the cure of disease, to cure the patient, if not the disease, to eradicate foci of infection in the zone of the origin (the anal canal) as well as

Transthoracic Extrapleural Approach

(Continued from Page 251)

posterior parts of the wound in order to prevent peritoneal or pleural perforation. The ureter is cut and ligated and the kidney freed from the wound. Then the aorta and vena cava are dissected free from all extraneous tissue, including nodes.

The wound is closed by approximating the diaphragmatic attachments previously severed. The pleura and peritoneum are searched carefully for tears. If an opening has been made into the pleural cavity a catheter is inserted into the chest; after the skin has been closed the lung is expanded by the anesthetist and the catheter removed. This procedure serves as prophylaxis against a pneumothorax. As a rule the catheter is not left in the chest for postoperative decompression. The wound is closed in the usual manner in layers, with or without drain to the kidney bed.

The postoperative course of patients undergoing this procedure has been good. There have been no serious postoperative chest or abdominal complications.

Summary

Nephrectomy for cancer of the kidney is often difficult because of inadequate surgical exposure. The use of a technique whereby the kidney is widely exposed through an eleventh rib incision enables the surgeon to remove the kidney with its fascial structures intact, without invading either the chest or the abdominal cavity.

Read at the annual meeting of the Oklahoma State Urological Association, Fort Gibson, Oklahoma, May 3, 1957.

REFERENCES

Woodruff, M. *Journal of Urology*, Vol. 73, pgs. 183-188, 1955.
1200 N. Walker, Oklahoma City, Oklahoma.

in distant zones. . . ."

EDITORIAL NOTES — PERSONAL AND GENERAL

"Muskogee County Medical Society met April 10th and the following program was presented:

" 'Ano-Rectal Fistulae,'—R. L. Murdock, Oklahoma City.

" 'Diseases of the Liver and Biliary System from the Medical Standpoint with Special Reference to Present Day Diagnostic Procedures'—N. P. Eley, Oklahoma City.

" 'Head Pains Due to Eye Strain'—Forrest S. King, Muskogee.

" 'Pertinent Points on Muskogee County Medical Society and Its Relationship to Its Membership and Organized Medicine'—C. E. White, Muskogee. . . ."

Deaths

GORDON DARNALL WILLIAMS, M.D.
1901-1958

Gordon Darnall Williams, M.D., 57 year-old Weatherford physician died at his home on April 3, 1958. A native of Weatherford, Doctor Williams had spent his entire life there, except for the time he was in school and in the United States Air Force.

Doctor Williams received his degree from the University of Oklahoma School of Medicine in 1927. After his internship at Polyclinic Hospital in New York City, he returned to Weatherford to assume the practice of his father, the late J. J. Williams, M.D.

Doctor Williams was a member of the Oklahoma State Medical Association and the American Medical Association.

CLAUDE MALCOLM COCHRAN, M.D.
1891-1958

Claude Malcolm Cochran, M.D., Okemah physician, died March 18, 1958. He had practiced in Okemah since 1925.

Born in Neosho Falls, Kansas, Doctor Cochran later graduated from the University of Illinois School of Medicine in 1922.

A Life Membership in the Oklahoma State Medical Association was awarded Doctor Cochran in 1957. He was also a member of the Okfuskee County Medical Society, the Southern Medical Association and the American Medical Association.

O. I. GREEN, M.D.
1878-1958

O. I. Green, M.D., 79-year-old Bartlesville eye, ear, nose and throat specialist, died in Sand Springs, April 4, 1958.

Doctor Green was born in New Windsor, Illinois on November 30, 1878. After seven years of teaching school in Illinois and Oregon, he entered medical school and received his degree from the Illinois School of Medicine in 1912.

In 1916, Doctor Green came to Bartlesville where he continued his practice until January of this year when he retired.

Doctor Green was a member of the Oklahoma State Medical Association and the American Medical Association.

Have You Heard?

THOMAS C. POINTS, M.D., Oklahoma City physician, has been elected president of the Oklahoma City Lions Club, which is the eighth largest club in Lions Club International. Doctor Points will take office July 1.

C. A. TRAVERSE, M.D., Alva physician and surgeon for nearly 24 years, became a fellow in the International College of Surgeons last month at the 11th biennial meeting of the World Federation of General Surgeons and Surgical Specialists in Los Angeles.

FRANK L. FLACK, M.D., Tulsa physician, has been named Tulsa County's Physician of the Year. The award was made by the Tulsa County Medical Auxiliary at special ceremonies on March 29. The 70 year-old physician came to Tulsa in 1928 after practicing in Coffeyville, Kansas.

LEROY A. WOLEVER, M.D., Drumright, has moved into his new clinic, located at the corner of Drumright and Ohio Streets. The new clinic was constructed from two former residential houses which were joined. It consists of a waiting room, the doctor's office, X-Ray and dark rooms, examining room, treatment room and a room for minor surgery.

HERBERT KENT, M.D., Associate Professor, Department of Physical Medicine, University of Oklahoma School of Medicine, will present a paper entitled "Rehabilitation Potential in Quadriplegic Teenagers" to the Section on Physical Medicine and Rehabilitation at the Annual Meeting of the American Medical Association on June 25 at San Francisco.

General Practice

Clyde R. Danks, M.D., 4780 Easley Street, Millington, Tennessee, age 29, married, graduated from University of Louisville, 1955. Will be available mid-August, 1958 upon completion of military service.

Sam Davis, M.D., 1605 N.E. 38, Oklahoma City, age 33, married, graduated from University of Oklahoma School of Medicine, 1956, veteran, will be available July 1, 1958.

Archie Neal McIntyre, M.D., 138 LeHardy Dr., Savannah, Georgia, age 28, married, graduated from Louisiana State University School of Medicine, 1955. Will be available November 3, 1958 upon completion of military service.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

Charles Edward Selah, M.D., Huey P. Long Charity Hospital, Pineville, Louisiana, age 31, married, will complete board requirements in June, 1958, veteran, graduated from Tulane 1951, will be available July 1, 1958.

Ralph L. Hopp, M.D., 338 E. Kingsley, Ann Arbor, Michigan. Married, veteran, Board Certificate held in General Surgery. Graduated Indiana University, 1950, will be available July 1, 1958.

Francis Patrick Lamb, M.D., 6426 Evergreen, Berkeley 21, Mo., age 35, married, veteran, graduated from St. Louis University in 1951, Diplomate American Board of Surgery, will be available July, 1958.

Locum Tenens

Jack David Shirley, M.D., 430 Bellevue, Lafayette, Louisiana, age 27, married, will be inducted into U. S. Navy, October 6, 1958, graduated from University of Oklahoma in 1956, would like position for three months doing general practice. Will be available July 1, 1958.

Neurosurgery

Bahif S. Salibi, M.D. (Currently Captain, MC U. S. Army) 121 Evac. Hosp., APO 971, San Francisco, California, age 35, married, Harvard, 1950, Board qualified in Neurosurgery, except for the two years of private practice required by the Boards, available October, 1958.

Herbert Claiborne Jones, M.D., Jr., Box 166, University Hospital Charlottesville, Virginia, age 30, married, University of Virginia 1951, finishing board qualifications, will be available Spring, 1958.

Orthopedic Surgery

H. N. Hamilton, M.D., 13 Evergreen Road, Little Rock, Arkansas, age 36, married, veteran. Johns Hopkins, 1945, finishing Orthopedic Residency July 1958 and will be available at that time.

Thoracic and Cardiovascular Surgery

Wayne E. Hird, M.D., McGuire VA Hospital, Richmond 19, Virginia, age 31, married, Korean veteran, University of Kansas 1950, Board qualified in General Surgery, Thoracic and Cardiovascular exams will be completed by next July. Will be available July, 1958.

James L. Russell, M.D., Charity Hospital of La., New Orleans 12, La., age 30, veteran, graduated from University of St. Louis 1949, Board certified in General Surgery, Board qualified in Thoracic and Cardiovascular. Will be available August, 1958.

CLASSIFIED ADS

FOR SALE—Used, Complete 100 M.A. G E X-Ray Fluoroscopy Unit with Bucky Tank. Excellent condition. \$1,250.00, terms, discount for cash. W. A. Waters, M.D., 4926 E. 21st Street, Tulsa.

PHYSICIAN WANTED, State Veterans Hospital, Sulphur, approx. \$900 per month plus other benefits. Contact C. E. Bates, M.D., Box 200, Sulphur, phone 851.

CLINIC LOANS: If you are planning to build a clinic, and need to secure financing, call Pat Allen, WI 2-2402 or write 1201 Classen Dr., Oklahoma City.

FOR SALE: Attractive business building, furnishings and equipment. Close by downtown Tulsa. Building is six years old and in good condition. Now being used by two physicians. Other new buildings recently erected close by. Available by July 1, 1958. 1321 South Main or call LUTHER 4-2481 in Tulsa.

GENERAL PRACTICE FOR SALE: Good general practice for sale; completely equipped new office; ground floor. County Seat town 3,000, 25 bed local hospital, gross \$30,000. Wonderful for general surgeon. Will sacrifice. Southeastern Kansas. If interested write Key A, c/o THE JOURNAL, P. O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

VED BY THE OKLAHOMA STATE MEDICAL ASSOCIATION AND THE ASSOCIATION OF HEALTH AND ACCIDENT INSURORS OF OKLAHOMA

INSURANCE COMPANY | ADDRESS

PATIENT'S NAME _____

2. ADDRESS

GNOSIS (EXPLAIN COMPLICATIONS)

PLEASE ATTACH TO COMPLETED INSURANCE CLAIM FORM

APPROVED BY THE OKLAHOMA STATE MEDICAL A

PHYSICIAN'S NAME	PATIENT'S NAME
ADDRESS	

COMPLETE FOR MEDICAL CARE ONLY: AT HOSPITAL, HOME, OR OFFICE.
GIVE THE DATES OF TREATMENT BY INSERTING MONTH AND YEAR.
H—HOSPITAL V—HOME O—OFFICE OR CLINIC

MONTH AND YEAR											
	1	2	3	4	5	6	7	8	9	10	11

See
prepa
State M

PLEASE STATE YOUR USUAL FEE FOR

HOSPITAL VISIT	HOME
\$	\$

COMPLETE FOR ALL OTHER TYPE CARE:
PLEASE DESCRIBE IN ITEMIZED MANNER

[illegible]

Now ready for use by all Oklahoma physicians is a revised and improved Standard Claim Form (Form 101) and a NEW Statement for Professional Services Rendered (Form 102). These new forms are prepared by the Insurance Committee of the Oklahoma State Medical Association and are designed for simplification of this tedious office job. Both forms are now available in pads of 50, see price list below ORDER NOW. . . use the handy order form.

STANDARD CLAIM FORM (Form 101)

1 Pad	. . . \$.70
(50 Forms)	
3 Pads	. . . 1.95
(150 Forms)	
6 Pads	. . . 3.75
(300 Forms)	
12 Pads	. . . 6.60
(600 Forms)	

**STATEMENT FOR PROFESSIONAL
SERVICES RENDERED
(Form 102)**

1 Pad	. . .	\$.80
	(50 Forms)	
3 Pads	. . .	2.25
	(150 Forms)	
6 Pads	. . .	4.35
	(300 Forms)	
12 Pads	. . .	7.70
	(600 Forms)	

Plus Oklahoma State Sales Tax. Discount 2% if remittance is mailed with order. Postage Paid.

ORDER FORM

CLIP AND MAIL

The TRANSCRIPT CO.

111 South Peters

Norman, Oklahoma

FORM 101

Pads

Enter our order as listed on the left and ship to the address below.

☐ **Check Enclosed**

Amount

FORM 102

Pads

Signature

Address

☐ Bill Me

Town

little
How to win friends ...

NOW!
 1 1/4 GR. SIZE

CHILDREN'S SIZE
 BAYER
 ASPIRIN

FLAVORED
 Children's Size
BAYER
 ASPIRIN

Genuine

48 TABLETS
 25¢
 1 1/4 GRS. EA.

DR. L...
 ILLNESS
 TEMPERATURE
 R

The Best Tasting
 Aspirin you can prescribe.

The Flavor Remains Stable
 down to the last tablet.

25¢ Bottle of 48 tablets (1 1/4 grs. each).

We will be pleased to send samples on request.

THE BAYER COMPANY DIVISION
 of Sterling Drug Inc.
 1450 Broadway, New York 18, N. Y.

John Snow, M.D.: A Centenary Celebration

JOHN G. MATT, M.D.

"Centenary Celebrations are posterity's tributes to the favored children of fame; sometimes they are tardy acknowledgments to genius. Too often does genius sup late, and sometimes it does not sup at all."—*Vincent Starrett*

One hundred years ago this month died a great scientist to whom modern anesthesia and epidemiology owe a great debt.

John Snow was born June 15, 1813, at York, England. Soon after his fourteenth birthday he left his father's farm to serve an apprenticeship in surgery under a Mr. Hardcastle of Newcastle-on-Tyne. He also was enrolled as a student at Newcastle Infirmary. The experience which he gained here by treating many patients suffering from cholera enabled him to accumulate certain observations about the disease which he published in 1849 in a pamphlet titled "The Mode of Communication of Cholera." In this publication he expounded his theory that cholera was caused by a specific germ which flourished in the human gastro-intestinal tract and which was transmitted to others by drinking of water contaminated by discharges by cholera victims. Thirty-five years were to pass before Koch's discovery of the cholera vibrio confirmed Snow's theory.

More immediate confirmation was made by Snow himself during the 1854 epidemic. A meeting of the vestrymen of St. James was held to discuss the causes of the pestilence. Doctor Snow was permitted to explain his theory to these officials. His epidemiological studies had convinced him that the source of the disease was from public water drawn from the Broad Street Pump. When asked what suggestions he had to check the disease, he replied, "Remove the handle from the pump!" The surprised ves-

trymen did so order and the epidemic was stopped.*

Meanwhile, James Young Simpson introduced chloroform anesthesia in Edinburgh. Influenced by Simpson's pre-eminent position, John Snow allowed his studies to be diverted from ether to the more potent chloroform. This diversion had one good result because he quickly recognized the dangerous qualities of the latter gas. Soon articles poured from his facile pen warning about the toxicity of chloroform and the danger of incorrect administration of it. He strongly denounced Simpson's slovenly method of dousing chloroform on a sponge, handkerchief or whatever was handy and then slapping it over the face of the terrorized patient. After a careful series of animal experiments he developed a satisfactory inhaler which was equipped with a face mask. This instrument, ingenious for the times, he continued to improve almost to the time of his death.

The compilation of his theories, experiments, and clinical experience with all the narcotic gases known at that time occupied the remaining years of his life. This work was almost complete at the time of his death. Benjamin Ward Richardson, who studied under Snow, edited and prepared the final manuscript which appeared in 1848 under the title "On Chloroform and Other Anesthetics: Their Action and Administration. By John Snow, M.D., Edited, with a memoir of the Author, by Benjamin W. Richardson, M.D."

This book contains fundamental facts about the pharmacology and physiological action of all of the anesthetic agents from the beginning of anesthesia to the time of the author's death. These observations are still valid today. Thus the first complete textbook in the field of anesthesia established



Figure 1. Dr. John Snow. (Reproduced from *Asclepiod*, Volume 4. 1887.)

ON
CHLOROFORM
AND
OTHER ANÆSTHETICS:
THEIR
ACTION AND ADMINISTRATION.
BY
JOHN SNOW, M.D.
LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS.
EDITED,
WITH A MEMOIR OF THE AUTHOR,
BY
BENJAMIN W. RICHARDSON, M.D.,
LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS.
LONDON :
JOHN CHURCHILL, NEW BURLINGTON STREET.
MDCCCLVIII.

Figure 2. Title page of Snow's book on anesthesia published shortly after his death.

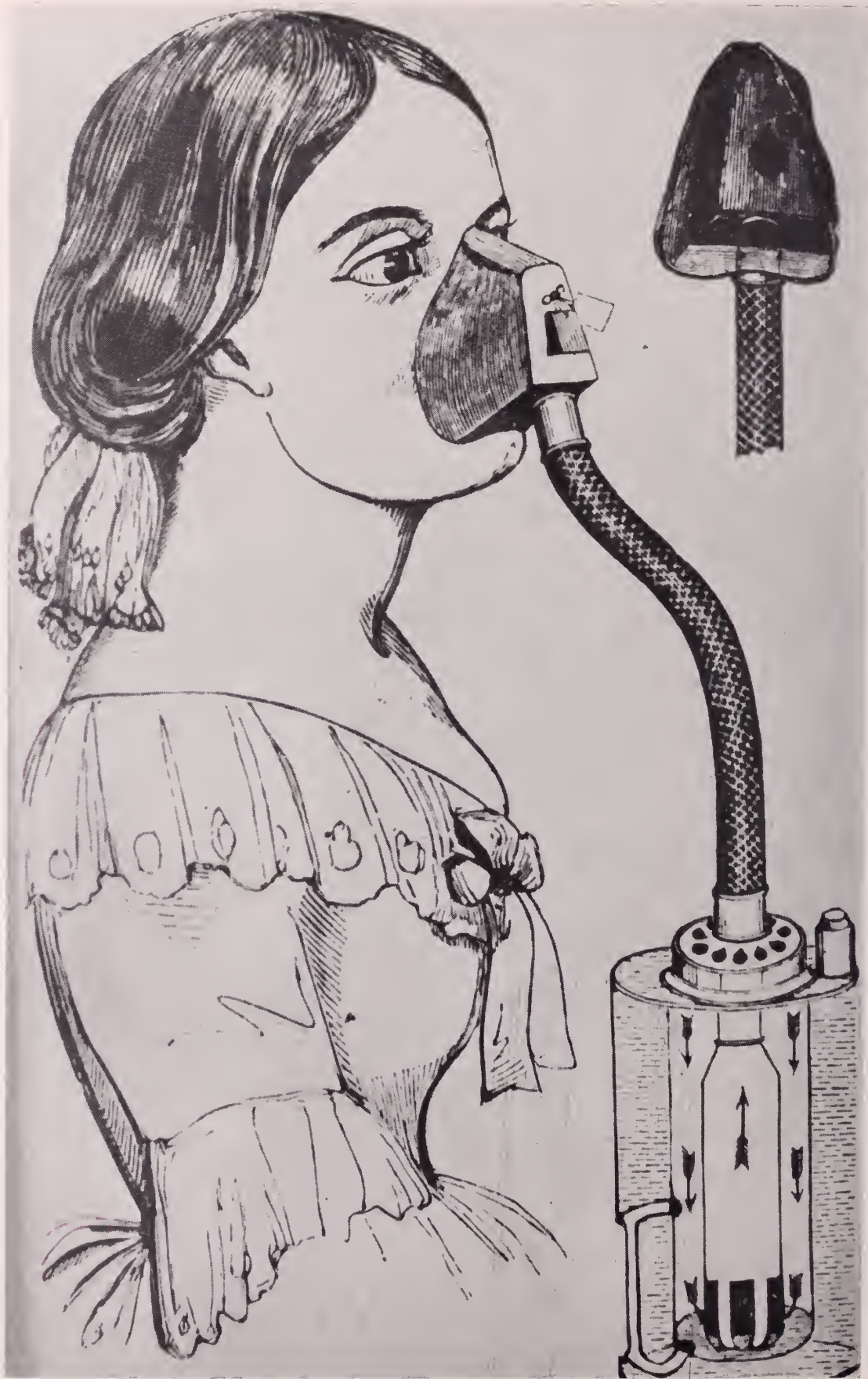


Figure 3. Snow's chloroform apparatus as pictured in his book.

itself as one of the world's great medical classics.

John Snow was not a robust man. In his early manhood he was a rigid vegetarian and a total abstainer during a period when gentlemen thought little about consuming two or more bottles of wine with a meal! Not long after he had received his M.D. degree he developed pulmonary tuberculosis, and in 1845 he was treated by Doctor Bright for kidney disease. This physician, great in his own right, required Doctor Snow to modify his abstinence; even insisting that he imbibe small quantities of wine each day. The prescription must have been sound because the patient had no more illness until on June 10, 1858, his housekeeper found him on the floor. He had suffered a stroke which paralyzed his left arm and leg and drew his mouth to the right. He remained conscious until the end came on June 11.

Had he the power of speech he might well have repeated the final words uttered by the great Master of Balliol College, Benjamin Jowett: "Thank God for my life!" But anesthesiologists throughout the world, and those to whom they minister, daily can thank God for the gifts granted to them from Doctor John Snow's brilliant mind.

In 1836 he studied anatomy at the Hun-

terian School of Medicine and in 1837 he served his hospital apprenticeship at the Westminster Hospital. He passed his examinations and was granted membership in the Royal College of Surgeons and the Royal College of Apothecaries in 1838.

While engaged in general practice in London he continued formal medical studies at the University of London and on December 20, 1844, he qualified for the degree of Doctor of Medicine.

Soon after the news of ether anesthesia reached London late in 1846, John Snow began the studies which were to occupy him for the rest of his life. Early in 1847 he published three papers on the anesthetic properties of sulphuric ether. In September of the same year he published a monograph which was based on observations he had made during the administration of the gas to eighty patients in St. George's and University College Hospitals. This paper is significant because in it Snow first described the four well-known stages of anesthesia. In his later, epochal, book he described the fifth stage of intercostal paralysis which occurs in lower animals.

*This story may be apocryphal. Another version is that the water, supplied to private subscribers by one of London's many private water companies, was from the sewage-laden Thames.

O.U. Medical School Alumni To Have Reunion at A. M. A. Meeting

Attention, all O. U. Medical School Alumni! We're going to have a reunion at the American Medical Association meeting in San Francisco in June! This will be in the form of a cocktail party on Monday evening, June 23rd, from 6:00 to 8:00 p.m. in the Olympic Club, 524 Post Street, San Francisco. The cost will be \$4.00 per person, which will cover liquid refreshments and foods.

Advance registration through the local alumni office is desirable (825 N. E. 13th Street, Oklahoma City, phone FOrest 5-8331), but there will also be a booth near the registration desk in San Francisco where reservations for the party may be made.

Scientific Articles

Mental Retardation - -

THE PROBLEM

JOHN W. SHACKELFORD, M.D.

The problem of the retarded child has faced the physician, the school, and the community for many years. Only recently has definitive action been undertaken. Parents groups, the National Association for Retarded Children along with the State, have given much impetus to this, leading to special classes in schools and development of diagnostic and guidance clinics over the Nation.

For a long time mental retardation was looked upon as a social problem with medicine having little responsibility in it. This has changed—it is first a problem of medicine and offers a very real challenge to the physician, general practitioner or specialist.

It is estimated that three per cent¹ of the total population is mentally retarded. Applying this figure to Oklahoma, we have upwards of 70,000 retardates.

Considerable variations exist within this average figure of three per cent. Prevalence studies² such as that made in Onondago County, New York, indicate that the rate for the under one year age group is two per 1,000, for the one and two year olds is four per 1,000, for the three and four year olds is six per 1,000.

At age five, the prevalence rate rises sharply to about 22 per 1,000 and then at age six almost doubles to nearly 40 per 1,000. After age six, the reported prevalence rate rises with increasing age, reaching a maximum of approximately 80 per 1,000 in the 10 to 15 year age span. Thereafter is noted a sharp decline in the rate, down to 28 per 1,000 for the 16 and 17 year old age group.

These rates point up the fact that in mental retardation we are not dealing with a stable category. The sharp increases in

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Among the organizations of which Doctor Shackelford is a member are the American Public Health Association, the American College of Preventive Medicine and National Association of Maternal and Child Health Directors.

prevalence at age six probably reflect not only a new major source of reporting, namely the school system, but also the introduction of the child to a situation requiring abstract intellectual processes. Likewise, the decline in the 16 and 17 year old group probably reflects the exit of the school from the picture and the absorption of many of the higher functioning individuals into community and industrial activities.

Equal variations also exist in this average figure of three per cent in terms of the degree of retardation and the potentialities of this group. Approximately 75 per cent of all of the mentally retarded are classified as mild, having an I.Q. of about 50 to 75. Twenty per cent of all of the mentally retarded are classified as moderately retarded, having an I.Q. of about 20 to 50. The remaining five per cent, with an I.Q. of below 20, are classified as severely retarded.

The mildly retarded, although classified as educable, cannot keep up with regular

classes in school.³ Unless their limitations are understood they are frequently subjects of emotional disturbances and delinquency. However, with early diagnosis, proper help to parents, and special educational provisions, most of these can become self-supporting citizens. They can be placed in industry and can make meaningful contributions in community life.

The moderately retarded, trainable but not educable, can learn personal care, learn acceptable behavior, and can be of some help to their families when diagnosed early and proper help is provided for the parents. This help must include counsel by their physician or clinic and frequently some help in training the child in the home.

Only with the severely retarded is the prognosis extremely poor. They will need continued help with activities of daily living and require close supervision for the rest of their lives.

It must be remembered that adjustment to life situations is not totally dependent on intelligence. Much of behavior grows out of social experiences. Mentally retarded children can acquire acceptable behavior by repeating procedures that are set up in the home. The sooner such patterns are inaugurated, the sooner the child will be able to move on to a new undertaking.

Hormuth⁴ recites the case of two boys of the same age and of the same I.Q. One is able to dress himself, feed himself, and go to the store. The other is so dependent and immature that he can do none of these things and will not leave his mother's side. The difference in the functioning ability of these two boys is primarily due to the fact that the limitations in one of them were recognized early and the family was given help in adjusting to the situation and in training the child.

In any consideration of mental retardation it must be realized that we are not dealing with a disease entity, but with a symptom of a variety of disorders of the central nervous system with many etiologies. In like manner, physical defects are more common among these children—orthopedic deformities, dental dysplasias. Nutritional problems are more frequent.

The physician must have a good knowledge of normal growth and development in his evaluation of these children; he must realize that certain severe emotional problems may be the basis for what superficially appears at first to be primary mental retardation; he must know that a severe hearing loss, present from birth or the earliest months, and thus inhibiting speech, can be exceedingly misleading. Other disciplines, the psychologist, the social worker, and the public health nurse, who has seen the home situation, have much to offer in evaluating these children and in implementing recommendations made for them.

As the retarded child gets older, institutional placement or some other provision for his care may have to be considered. Problems may arise relative to adolescent siblings. Parents become older and the responsibility of the retardate becomes increasingly burdensome. Sometimes there are emotional and behavior problems which may make institutional care advisable.

Observed and Theoretical Numbers of Retardates

Lemkau⁵ calls attention to a biological concept; namely, that we assume traits of all sorts are arranged in frequency according to a normal distribution curve—the “bell-shaped” curve. Were this the case, 50 per cent of the population would have an I.Q. of 100 or above and 50 per cent would have an I.Q. of 100 or below. Using other proportions in the normal distribution, an estimate may be obtained of the numbers of persons among the population of the United States or in Oklahoma which would be expected to be retarded if mental defects were a purely biological variant. Such an estimate would show in the United States nearly 5,000 severely retarded and nearly 50,000 moderately retarded. Yet among the mentally defective persons in institutions in the United States, it has been estimated that there are 30,000 severely retarded and 60,000 moderately retarded. Furthermore, the 1936 Baltimore survey and the study in Onondago County, New York, revealed severely retarded individuals far in excess of the number expected in a normal distribution of intelligence.

"The skew therefore must be determined on other than hereditary grounds. This line of thinking has opened up new vistas in epidemiological research in the last few years, particularly on the association of mental deficiency with obstetrical complications and prematurity. These researchers have led me to the firm belief that a considerable proportion of all moneys going into future research on mental deficiency ought to be devoted to research in obstetrics, from the nutrition of the pregnant woman to the secrets of the biochemistry of hypertension of pregnancy, eclampsia, and other obstetrical complications. There is much to be done about the prevention of mental deficiency by obstetricians, just as there was much

done in the prevention of paresis by the syphilologists."—Lemkau.

Study in this field is already being started as a joint project of the State Department of Health and the Departments of Pediatrics and Obstetrics of the University Medical School—a study of perinatal problems.

Summary

We have a problem of defining factors which may be responsible for reproductive failure, whether this failure be abortion, premature birth, cerebral palsy, mental retardation, or congenital malformation.

We have a problem of early recognition, evaluation and habilitation of three per cent of the child population who are born with

these disorders of the central nervous system which categorize them as retarded children.

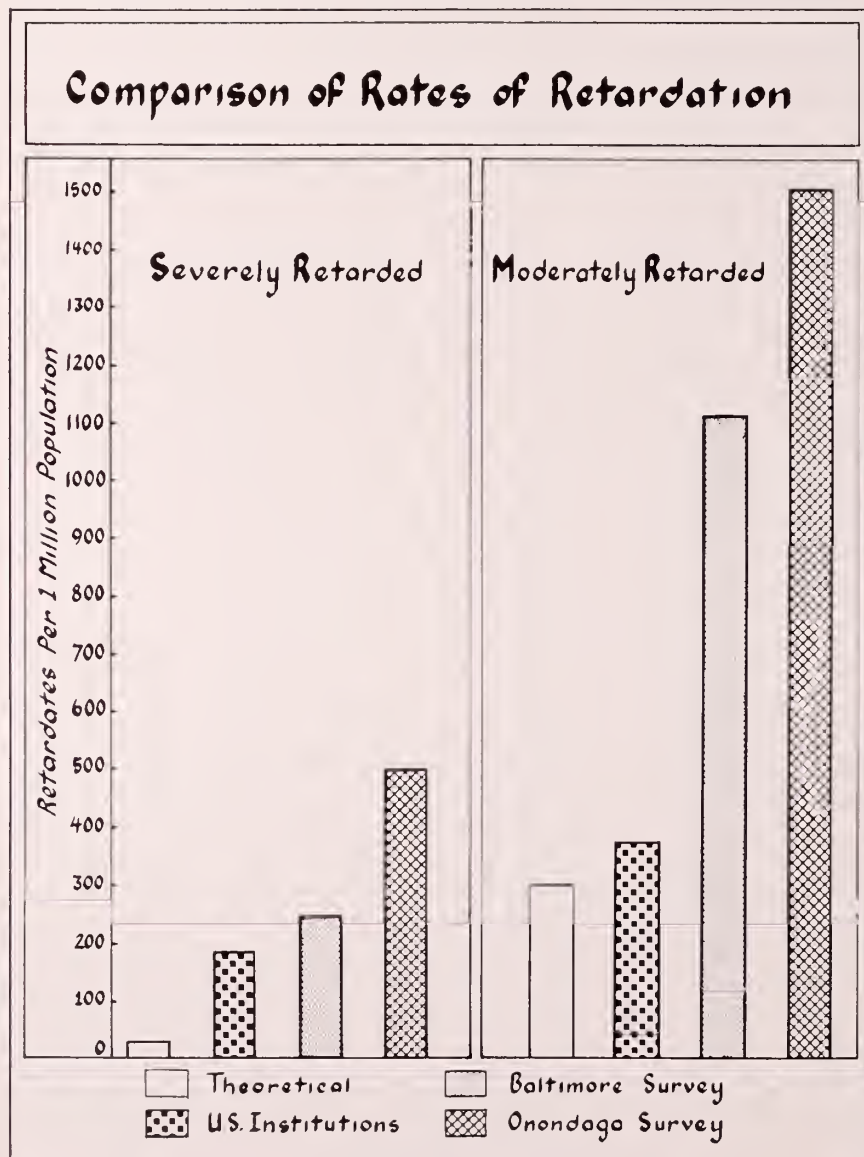
Acknowledgement

Gratitude is expressed to Mr. Rudolf Hormuth for his invaluable assistance in the preparation of this paper.

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The Etiology of Mental Health Retardation

T. R. PFUNDT, M.D.

Mental retardation is not a disease. It is an effect. It has been well stated by Dr. Robert Masland, that mental retardation is a symptom complex of the broadest sort, that cuts across all lines of medical and related disciplines, and a field whose borders trail off into innumerable channels of basic and applied research. It is a subject so broad in outline as to almost defy description and classification. Some attempt to do just this, however, is necessary in view of the fact that it is a field that is developing very rapidly from many exciting and unexpected angles.

It is no longer true that the field of mental retardation is characterized only by impractical theory. There is still much theorizing and probably will be for a long time to come. However, there are now enough practical facts pertaining to retardation to stimulate the thinking of even the most objective of scientists, and indeed they are entering the general field of mental retardation from every corner. Almost all undergraduate and graduate schools in the country are now doing some sort of basic research pertaining to mental retardation. This does not mean the research project is aimed at mental retardation or is supported by funds designed to further research in this specific area. It remains a fact, however, that basic research from zoology, physics, chemistry, psychology, education, special education, sociology, and anthropology serve as excellent examples of fields from which information is being gathered, correlated and analyzed for its pertinence to mental retardation. To this vast background of basic information is being added special clinical information as gathered by pre-clinical and clinical medical sciences throughout most of the University Medical Centers of this country and indeed from many excellent medical facilities not associated with any university.

Historically the study of mental retardation has lacked a great deal of the luster that

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has surrounded the study of many other conditions. The unattractiveness of study in this particular field has been perpetuated to a large extent by lack of techniques in the study of the etiology and by the uniformly poor prognosis when these conditions have been encountered clinically. Today the situation is quite different, so much so that it is now a field of tremendous activity particularly from the aspect of the preventive approach. The concept of the prevention of mental retardation has evolved primarily out of the concepts of preventive pediatrics in general. Those of us who are interested in child care in all its aspects would seem to have a distinct advantage in the study of the etiology of mental retardation. First of all, growth and development might be said to have replaced, or at least to have come along side, the problems of nutrition and infectious disease as the most distinguishing characteristic of the field of pediatrics today. In addition to this, those interested in child care seem to be the closest in the fields of genetics, embryology, obstetrics, and the behaviorad sciences at least in so far as their combined contributions go toward the general field of mental retardation. The field of child care is also intimately interwoven with the general field of education, and here again is an excellent opportunity for joint participation in the field of retardation.

It is certainly no longer sufficient to categorize a child as being mentally retarded or normal. If one considers him to be sub-normal mentally, then it behooves all of us to find out why he is sub-normal mentally.

This projects us immediately into the problems of prognosis and medical counseling, one of the most human facets of medical practice, but one which must be based if at all possible on the understanding of the cause of the situation. There are very often opportunities for the primary or secondary prevention of retardation in any given situation. The recent advances in the field of metabolic diseases with genetic backgrounds is a case in point. It may not always be possible to help the individual who is being presented as a problem in retardation, but it may very often be possible to prevent the same situation from arising in siblings, and many of these families are still having children. Even from the standpoint of secondary prevention of retardation it may be said that opportunities are often presented for preventing a superimposed social or psychological retardation on the basis of deprivation in an individual who possibly could function in some capacity in society if his retardation on the basis of structural defect were properly handled.

It goes almost without saying that intensive studies in the etiology of mental retardation are the basis for clinical research in this field, and indeed are absolutely necessary to form some sort of meaning out of the vast amount of basic research being done.

There have been many classifications of retardation published, most of which have been prepared on the basis of need by a specific group working in the field. Thus we see that in 1917 the American Psychiatric Association published a classification that was designed for and used primarily by hospitals for the custodial care of the mentally diseased. The present emphasis on classification perhaps had its beginning in 1927 when the New York Academy of Medicine stimulated work on a standard system of nomenclature for all medical diseases. This was first published in 1933, but it was almost immediately apparent that the categories into which mental retardation could be put were quite insufficient. This, of course, was largely on the basis of the lack of knowledge at that time and so an exceptionally high proportion of these cases

were simply lumped together as being "etiology unknown." In 1937 the American Medical Association undertook the job of maintaining the standard nomenclature of diseases and has published revisions in 1942, 1952 and will publish another in 1962. The interest in etiology of mental retardation can be seen from the dissatisfaction that was present even with the 1952 revision, since it was changed very little from previous editions and was still based largely on institutional needs. It is now felt that classification needs are based primarily on their utility by various disciplines interested in the problems, but that they must make room for extreme flexibility since the field is moving ahead so rapidly. Exact etiologic diagnosis must be stressed within the limits of present day knowledge.

The author has recently returned from a conference for clinical directors of programs for mental retardation held in Washington, D. C., at which a preliminary outline for the classification of mental retardation was presented. This work was done by Rick Heber, Ph.D., and his associates as a special project of the American Association for Mental Deficiency. It represents a great deal of work which I think has been extremely well done and which will form the basis for presentation to the American Medical Association in the hopes that it will be included in the 1962 revision of the standard nomenclature. It will not be presented in its entirety here because it is based on a code system which is not the primary purpose of this article to present, but the basic structure of the classification I think is important. It involves primarily nine major categories, each one of which is much more detailed than can be presented here. They are basically these:

A. Mental Retardation Associated with Diseases and Conditions Due to Infection. We are all familiar with the pros and cons of studies relating to fetal viremia and their general relationship to subsequent retardation, the final settling down of the role of maternal rubella and its relationship to congenital anomalies, the recent prominence in the literature of toxoplasmosis and many similar instances of studies relating infec-

tious disease to retardation. In many instances a positive history of maternal infection has halted further search for causative factors so that the role of infection in mental retardation is still a long way from being settled. Perhaps the biggest block in settling this issue is still a lack of sensitivity in the detection of past infection in the newborn.

B. *Mental Retardation Associated with Diseases and Conditions Due to Intoxication.* This is another very broad category and one in which many things are known, but more is not known. Under the proposed classification this is where the kernicterus problem would fit, along with the problems related to maternal toxemia, the post-serum and post-vaccinal encephalitides, and the possible role of abortifacients in the production of retardation. Anyone who is conversant with the problems of teratogenic agents or the problems of trying to determine whether a congenital anomaly is genetically or environmentally produced will no doubt be able to speculate for a long time to come on the role of many agents within this category.

C. *Mental Retardation Associated with Diseases and Conditions Due to Trauma or Physical Agent.* It is here that one finds the problems related to birth injury, hypoxia and those related to irradiation and post-natal injury. There are many others of course, but as an indication of some of the problems relative to what belongs here and what does not, the following might be briefly mentioned as examples: problems of subtle personality disorganizations on the basis of organic injury, problems of perceptual impairment on the basis of central nervous system damage, problems of the relationship of prematurity per se to mental retardation. Here it might be said that those who are primarily organically oriented and those who are primarily functionally oriented are a long way from final agreement. Problems of encephalopathy due to asphyxia at birth, the general consensus being that perhaps this situation is rarer than has been generally believed in the past. This one probably awaits additional refinement in biochemical technique for its final solution.

D. *Mental Retardation Associated with Diseases and Conditions Due to Disorder of Metabolism, Growth or Nutrition.* This is a very large category and one in which a great deal of information has been presented in the recent past. Who has not seen a recent article on galactosemia or phenylketonuria, and yet who can say what the genetic background of these diseases really is? Who can state the incidence of sub-clinical disease? In this category we also find such familiar designations as porphyria, hypothyroidism, hypoglycemia, the glycogenoses and encephalopathy with diabetes insipidus, a sex linked disease. Also the disorders of lipid metabolism and the cerebro-macular degenerations, lipochondrodystrophy, and the lipid histiocytoses of the kerafin and phosphatide types. These involve deposition of abnormal metabolites in tissues and are now being restudied very vigorously from the standpoint of the developmental chronology of biochemistry. The chronology of the development of enzyme systems may have a great deal of light to throw on these subjects particularly when they are correlated with known structural defects.

E. *Mental Retardation Associated with Diseases Due to New Growths.* This category will be pretty largely self explanatory and involves some well known syndromes such as nevoid amentia (Sturge-Weber-Dimitri disease), neurofibromatosis, a dominant gene disease in which the intelligence may vary from normal to the severely retarded and tuberous sclerosis.

F. *Mental Retardation of Psychosocial Origin.* This is an interesting designation because of the introduction of the word psychosocial into standard nomenclature. As now visualized there will perhaps be two major sub-divisions here, the first being entitled, Psychosocial Retardation, involving the concept of deprivation or lack of discrimination response such as might be seen in an individual coming from an extremely adverse foreign type culture. The second may be designated as Psychogenic Retardation on the basis of severe prolonged emotional disturbance.

G. *Mental Retardation Associated with Diseases and Conditions Due to (Unknown)*

Prenatal Influence. In this category we find disease states placed here largely because of their temporal relationships in development, such situations are arachnodactyly and Marfan's syndrome. The congenital cerebral defects such as agyria, macrogyria, congenital porencephaly, congenital hydrocephalus, hypertelorism, the Laurence-Moon-Biedl syndrome, and probably mongolism will be placed in category G. The interesting debates continue in the literature over the placing of the mongoloid child in any classification. It is an excellent example of how much thinking is really going in the study of congenital defects associated with mental retardation at this time.

H. *Mental Retardation Associated with Diseases and Conditions Due to Unknown or Uncertain Cause with the Structural Reactions Manifest.* Here we will undoubtedly find cerebral cortical atrophy and the encephalopathies associated with sclerosis, perhaps in deference to historical classifications, broken down according to the many, many names given these diseases in the neurological literature based primarily upon the age of onset or the duration of the progressive disease. Hepatolenticular degeneration or Wilson's disease will probably be in this category also, unless it is soon removed through research into the category of metabolic disease.

I. *Mental Retardation Due to Unknown or Uncertain Cause with the Functional Reaction Alone Manifest.* This is again an interesting designation and will be headed by a very large group of individuals previously designated as belonging to the class of familial retardates. These will be those individuals in which there is no reasonable evidence of cerebral pathology and who will be placed here primarily because there is no evidence of severe and prolonged emotional conflict and because the family is similarly effected. Also categorized here perhaps will be a group designated as idiopathic mental retardation although there is a great deal of opposition to the use of the word idiopathic. It perhaps will be too easy to place in such a convenient designation all those individuals who are now institutionalized on the basis of unknown etiology.

As supplemental terms which will eventually fit into the above classifications by code number variations we find such things as, the listing of genetic factors, motor dysfunction, secondary cranial anomalies, sensory impairment, convulsive disorders and psychologic impairment.

Also important in the consideration of the etiology of retardation should be a setting down of the conditions from which mental retardation must be differentiated.

1. Primary disorders
 - Autism
 - Childhood Schizophrenia
2. Emotional or psychologic conditions of a neurotic disorder
3. Sensory disorders
 - Blindness
 - Deafness
4. Motor disorders
 - Speech
 - Movement

We have indicated some of the areas of interest and intense activity in research pertaining to the etiology of mental retardation in our general classification. However, there are a few more which need very brief listing as an indication that this is no longer a dull subject. The experimental irradiation of human tissue cultures is extremely promising as a research tool. It is not being used in the sense that every pregnancy receives irradiation in sufficient amount to damage the fetus, but simply as a means of determining how damage takes place. The biochemical approach to genetics through its study of tissue culture, and the immunological approach, as well as the afore mentioned enzyme defects are most fascinating ones. This obviously requires extreme knowledge of biochemistry and is one in which very little has been done among retardates themselves. The studies in experimental teratology are moving forward very rapidly and are presenting interesting findings in relationship to drugs, infection, and psychologic, psychiatric, and physical trauma. The studies in time specificity and in agent specificity in teratology continue to be most interesting. Even at the risk of sounding outdated it can be said that the concept of the

(Continued on Page 357)

The Physician's Responsibility in **MENTAL RETARDATION**

G. R. RUSSELL, M.D., and ROBERT K. ENDRES, M.D.

Scope of the Problem of the Handicapped Child

The mentally retarded individual is naturally a handicapped individual. According to Wishik,¹ 10 per cent of all children have some type of handicap; that of these, one-third have only one handicap, an additional third have two handicaps, and the final third, multiple handicaps. Expressed in another way, his studies in Georgia suggest that the number of children per one thousand under 21 years of age having each of following type of defect may be estimated as follows:

Cosmetic	43
Mental Retardation	40
Personality Disturbance	29
Speech	29
Eye and Vision	24
Hearing	19
Orthopedic	17
Orthodontic	16
Cardiac	10
Cerebral Palsy	5
Epilepsy	4
Cleft palate and lip	1

Because of the multiplicity of defects in at least two-thirds of the group, this results in a total of 237 defects per one thousand children. Consequently, the physician's first responsibility in a case of mental retardation is the consideration of the effects of these other handicaps, such as poor vision, hearing or personality disturbances, and the improvement or elimination of these other handicaps wherever possible.

Mental Retardation on a National Level

An ideal nationwide epidemiologic evaluation of mental retardation is not available, but a careful survey of Onondaga County was made by the New York Department of Mental Hygiene in 1953. According to Powers,² if that measure of prevalence is applied to the whole United States with a population of 168 million, it would mean that there are nearly two million persons

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At the present time, Doctor Russell is Coordinator of Pediatrics at St. John's Hospital, Tulsa, Oklahoma. He is a member of the American Academy of Pediatrics and the Southern Medical Association. He is Past President of the Tulsa County Medical Society.

Robert K. Endres, M.D., graduated from the University of Oklahoma School of Medicine in 1948. His practice is limited to his specialty, pediatrics and he is certified by the American Board of Pediatrics.

Formerly in practice in Sallisaw, Oklahoma, Doctor Endres is now Pediatric Consultant at the Mental Retardation Training Center in Tulsa.

with characteristics that indicate possible mental retardation. If there are two parents and two siblings in each home, he estimated that some ten million persons—six per cent of the total population—are intimately and inextricably involved with the problems of mental subnormality in this country.

According to Yannet,³ a useful means for classifying mentally-defective children in regard to the degree of defect is as follows:

I.Q. 51-75: Moron or high grade.

I.Q. 21-50: Imbecile or middle grade.

I.Q. 0-20: Idiot or low grade.

The proportionate distribution of these categories in the general defective population in England was estimated in the Wood Report as 75:20:5 for the moron, imbecile and idiot, respectively.

It is evident that mental retardation, because of its many facets of associated handicaps and because of its sheer magnitude, presents a real challenge for the medical

profession. Among the responsibilities of the physician may be listed the following:

(1) To become completely familiar with normal growth and developmental patterns in order to better judge and evaluate aberrations. Special study seems indicated at certain "stress" points (to be discussed later).

(2) To determine the etiology of all aberrations of growth and development wherever possible.

(3) To document and correlate all etiologic factors with possible preventive benefits.

(4) To arrive at a diagnosis in all degrees of mental retardation with special reference to multiple handicaps in a given case.

(5) To give a reasonable prognosis with regard to the ultimate growth and develop-

ment of the mentally retarded individual.

(6) To institute methods of treatment both preventive and actively therapeutic wherever possible.

(7) To advocate and foster all methods of rehabilitation with the goal of providing the maximum degree of social adjustment for the individual afflicted by mental retardation.

(8) To stimulate research in all phases of the above responsibilities.

1. Normal Growth and Development with Aberrations

Before a physician can determine mental retardation, he must know normal growth and development. In other words, he must be familiar with the increase in the size of the body and its parts, as well as the maturation of skills and function. There are

THEORETICAL AVERAGE WEIGHT of Human Males from Early Fetal to Adult Life

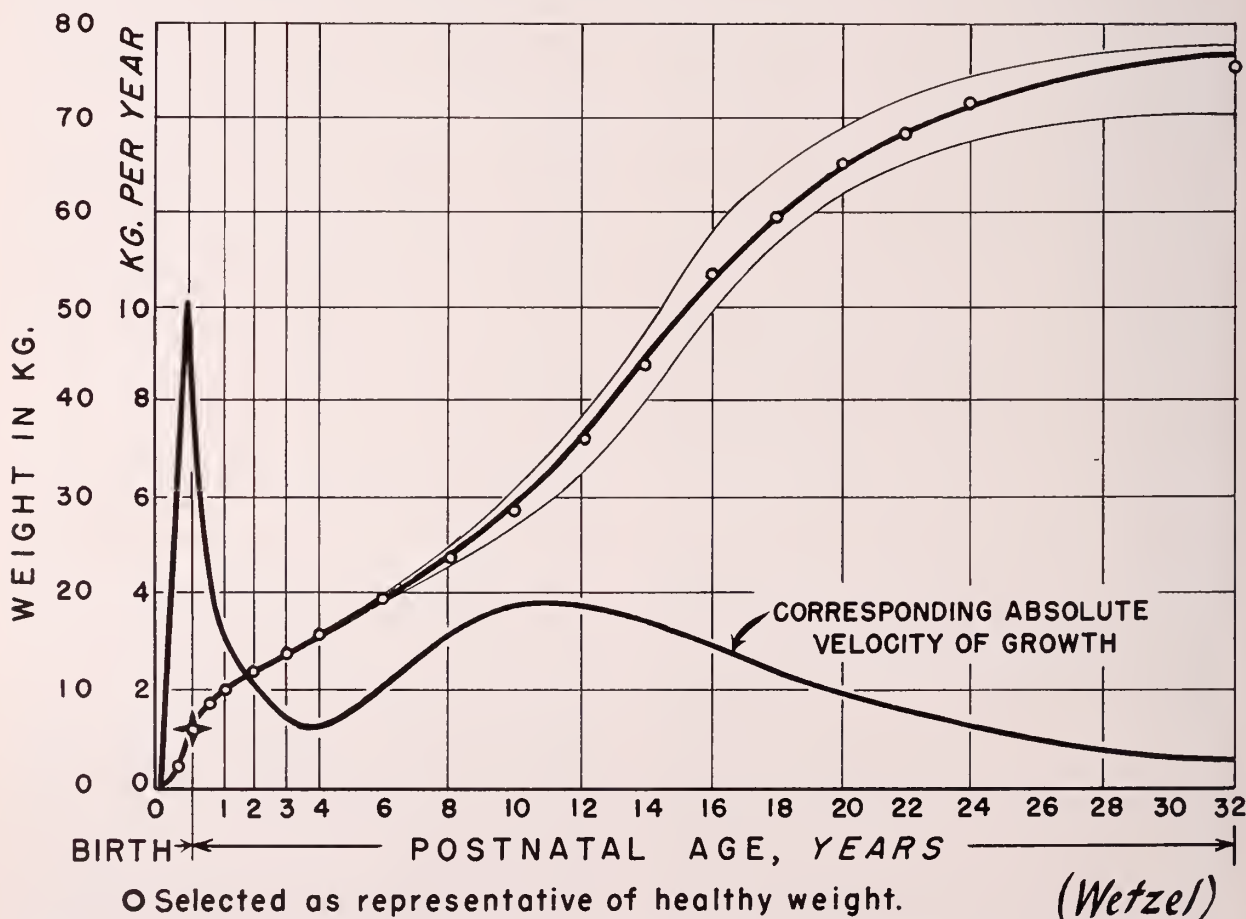


Figure 1. Weight and velocity of growth curves of the human male from conception to maturity (Wetzel). Note the velocity curve rises rapidly to the time of birth and then falls rather rapidly with a moderate rise again during puberty.

numerous grids and growth charts, such as Wetzel's grid,⁴ The Olson-Hughes growth chart,⁵ Stuart (Boston),⁶ Jackson (Iowa),⁷ and the Fels Composite Sheet,⁸ to help determine whether an individual is progressing normally or not. Development, an inseparable companion to growth, is much more difficult to accurately evaluate. Gesell,⁹ Spock,¹⁰ Watson and Lowrey,¹¹ and others have given us good standards with which we might compare children in whom mental retardation is suspected.

Periods of Stress in Normal Growth and Development

A good basic understanding of normal growth and development, plus the factors producing aberrations from conception on, aids the physician in determining etiology and possible preventive factors. Wetzel's growth curve (Fig. 1) shows a tremendous velocity in increase in mass from conception to birth, then a steady decline of velocity to maturation interrupted only by the moderate rise associated with adolescence. The increase in weight from conception to birth is approximately six billion times, while from birth to maturation is only about twenty times. By the end of three months of intra-uterine life, organogenesis is complete and the fetus definitely resembles a human being. The central nervous system growth and maturation is most rapid from conception to birth, and at a declining rate during infancy and early childhood. The central nervous system makes up almost 50 per cent of the fetal weight at two months' gestation; at birth it is about 10 per cent of the total weight; and at maturity it represents only two per cent of the total weight. (The brain at birth is 350 grams, and at maturity is 1350 grams.) Consequently, it can be seen that any interference with the growth and development of the central nervous system during fetal life and early childhood will have results that are far reaching.

The two main periods of stress or phases during which the growing organism is most susceptible to damage are: 1—Antenatal phase, which may be subdivided into a period of organogenesis, the first trimester, and a period of increasing velocity of growth the remaining period of gestation (Fig 2).

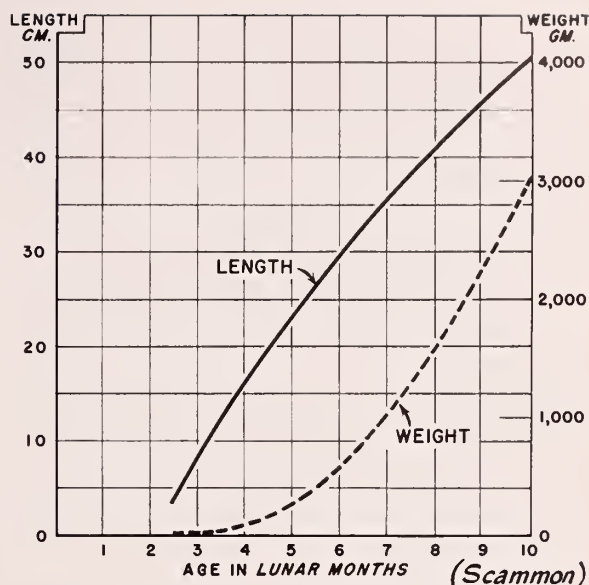


Figure 2. Increase in weight and length of human fetus during gestation period of ten lunar months (Scammon). Note the relatively slight increase in weight and length during the first trimester or during the phase of organogenesis.

2—The parinatal phase, beginning with the onset of labor and associated with the hazards of trauma and sedation, culminated by the adjustment from a host-parasite relationship of intra-uterine life to the independent existence of extra-uterine life which is usually accomplished by one month of age.

2. Etiologic Factors

Heredity, naturally, plays a tremendous role in this problem. The chromosomes of the zygote determine sex, blood type, color of hair, eyes and potential body build. Unfortunately, aberrations in the form of mental retardation and certain inborn errors of metabolism such as phenylpyruvic oligophrenia and galactosemia are also passed from generation to generation.

During the life of an individual beginning with conception he is subjected to certain hazardous periods which can be classed as prenatal, perinatal, and postnatal. The prenatal period, during which the zygote increases in mass six billion times, is particularly dangerous. According to Cooke and Odell, the following are preventable or modifiable factors during these periods.

Prenatal

(1) Infection—Rubella, cytomegalic in-

clusion body disease, toxoplasmosis, lues, pneumonia and various other virus diseases.

- (2) Chemical—Anoxia, deficiency states, pyridoxine excess, vitamin D excess.
- (3) Endocrine—Maternal thyroid disease and diabetes.
- (4) Placental—Toxemia, abruptio placentae, placenta previa, hydramnios, trauma, premature rupture of membranes.
- (5) Radiation—X-ray, radium therapy, atomic, etc.
- (6) Immunologic — Fetal-maternal blood group or other incompatibility; specific food excesses.

From the onset of labor to extra-uterine life, the fetus and newborn faces the most important and most dangerous event of his life. There are many obstetrical factors that can lead to chronic injury, and Cooke and Odell list them as follows:

Paranatal

- (1) Infection—Gonorrhea, herpes, pulmonary aspiration.
- (2) Chemical—Anoxia, barbiturates, narcotics and anesthetics.
- (3) Cardiovascular — Maternal hypertension and fetal hemorrhage.
- (4) Mechanical—Cephalopelvic disproportion, precipitate delivery, cesarean section, uterine spasm, breech, pitocin induction.
- (5) Prematurity.
- (6) Postmaturity.

Postnatal

The postnatal period can be further subdivided into the neonatal (first four weeks of extra-uterine life) and the period of infancy and childhood. These periods also have problems that are specific to the age group, and of which the physician should be cognizant. Here, more than at any other age, preventive medicine plays a leading role. Cooke and Odell list the major neonatal factors as follows:

Neonatal

- (1) Infection—Coxsackie B, staphylococcus, pyocyanus.

- (2) Chemical — Anoxia, hyperbilirubinaemia, vitamin K excess, naphthalene, lactose or galactose and phenylalanine, hypersomolarity. O₂ poisoning, parenteral gantrisin.
- (3) Immunologic—Blood group incompatibility, milk protein or other antigens.
- (4) Endocrine—Cretinism.
- (5) Physical—Hyperthermia.
- (6) Iatrogenic — Delayed recognition of orthopedic defects, subdural hematoma, cystic fibrosis, etc.

By the time the individual reaches the end of the neonatal period without damage, and assuming a normal hereditary background, he has a 99 plus per cent chance of becoming a normal individual. The main obstacles from this time on are infection (meningitides and the encephalitides), poisoning (heavy metal) and trauma including vascular accidents.

3. Documentation

The documentation and correlation of all etiologic factors and all possible preventive measures should be the responsibility of every physician. This means accurate and complete antenatal, perinatal and neonatal records in all newborn centers.

4. Diagnosis

When the physician sees a handicapped patient, especially with mental retardation, the diagnosis can present a real problem. Again, it is his responsibility to determine as accurately as possible the diagnosis, because the prognosis and treatment will depend on his findings. A thorough complete history with the chief complaint, verbatim, in the parents' or nurse's own words, and with particular reference to the above-discussed stress periods should begin the work-up. He should ask about specific events of the pregnancy, infections, maternal health, etc. The labor and birth history with reference to drugs, complications, precipitate or prolonged labor, prematurity or postmaturity, and reaction at time of birth. The period of infancy with ages of various accomplishments such as the ability to raise the head, sit alone, crawl, walk, talk, etc.,

will give valuable information. He should inquire into infections and other diseases of infancy and childhood, or immunizations, of disturbances of organ systems other than the central nervous system, of the nutritional state, and of the regularity of health conferences.

The family history should be gone into carefully. Special reference should be made to all hereditary forms of mental retardation and inborn errors of metabolism. Any chronic disease in parents, siblings or near relatives should be noted.

The physical examination should include a complete neurologic. The child's general appearance should be noted in detail—whether he is happy or irritable, lethargic or hyperactive—his facial expressions, whether he exhibits any stigmata of the various types of mental retardation such as mongolism, Laurence-Moon-Biedl syndrome, Hurler's disease, cretinism, and other obvious defects. Routine measurements, such as temperature, pulse, respiration, blood pressure, height, weight, head and chest circumference, should be made and, where applicable, compared to a good system of normals such as the Wetzell grid. A careful evaluation of all organ systems in mandatory with special reference to the cardiovascular system and the organs to special sense, such as the eyes, eyegrounds and visual acuity, ears with hearing tests, teeth, and orthopedic defects. Cosmetic defects, such as birth marks, cleft lips and palates, etc., should be evaluated with reference to their effect on the personality.

Laboratory procedures should include routinely: Complete blood count, Rh determination, erythrocyte sedimentation rate, Wasserman, serum calcium, fasting blood sugar, and NPN. A complete urinalysis including examination for phenylpyruvic acid should be done. Other laboratory procedures may be a protein-bound iodine in cretinism, serum copper in Wilson's disease, and blood and urine lead levels in suspected lead intoxication. X-ray studies should include routinely a skull series, wrists for bone age and lead lines and, when indicated, air studies (pneumo-encephalogram).

Psychometric studies are useful in arriv-

ing at an adequate diagnosis. They are primarily useful in assessing intelligence, as they permit the comparison of the individual's various abilities with those of others of his same chronological age. Since this comparison is made under identical of "standardized" conditions, faulty conclusions based upon personal and emotional considerations are reduced.

The results of these tests are useful not only in determining the subject's present level of performance, but they give clues to his actual or native level of ability. In this way lack of performance due to emotional factors, and the degree to which these factors hamper performance, can be estimated.

Those areas of strengths and weaknesses may be isolated so that a more intelligent and realistic approach to training and rehabilitation may be made with goals set that are based upon capacity and emotional readiness to achieve them.

Consultations should be freely sought and specialists in psychiatry, neurology, ear, nose and throat, ophthalmology, dentistry, orthopedics, and in the field of education can give needed aid.

Evaluation

When the work-up is completed it has been found that the final evaluation is best made by the team approach. This team should consist of a psychiatrist, neurologist, pediatrician, psychologist, social worker, and representatives of education and nursing. They should try to arrive at as precise a classification as possible for therapeutic and statistical purposes.

The concept of the child as a whole with certain handicaps and certain potentialities must not be lost to sight, and the final tabulation should include all preventable factors for future preventive medicine, for the good of the individual and for the nation.

5. Prognosis

The prognosis, insofar as ultimate mental and physical development is concerned, should be determined for each individual child. The outlook for the cerebral spastic, the cretin (where early treatment may change the prognosis) or the mongoloid,

will vary in each case, and in the non-trainable child, early institutionalization must be considered.

6. *Therapy in Mental Retardation*

The physician's responsibility to the mentally retarded is to do something about it. An ounce of prevention in this situation is equivalent to a *ton* of cure. Attention to stress points in the care of mother and child is essential. The maternal preconception status should be at its best and should be maintained during gestation. Birth, with a minimum of trauma and sedation, the proper use of forceps and drugs should be guided with the ultimate goal of a healthy undamaged newborn. Close observation, guidance and care including immunizations throughout the period of growth and development is essential. The relief of other handicaps, such as cosmetic, visual, auditory, emotional and orthopedic should be carried out at as early an age as possible. Active treatment in many cases can prevent future complications, i.e., early diagnosis and treatment of a pregnant woman with lues, thyroid in cretinism, the removal of exciting agents in inborn errors of metabolism, such as phenylalanine in phenylpyruvic oligophrenia, or lactose in galactosemia, the removal of heavy metals, such as lead with calcium versenate, and psychiatric treatment when indicated, etc.

7. *Rehabilitation*

It is the physician's duty to know where to refer his patients with special problems that he is unable to handle. He should be cognizant of agencies, training schools, mental institutions, and educational facilities that will help him provide the patient with the maximum degree of social adjustment of which he is capable.

8. *Research*

Finally, it is the physician's responsibility to foster and stimulate research in all areas offering promise for the prevention and treatment of all forms of mental retardation.

Summary

The scope of the problem of mental retardation on a national level and its rela-

tion to other handicaps has been reviewed. It is estimated that some ten million persons—six per cent of the total population—are intimately and inextricably involved with the problems of mental subnormality in this country.

Mental retardation, because of its many facets of associated handicaps and because of its sheer magnitude, presents a real challenge to the medical profession.

Among the physician's responsibilities in mental retardation are (a) to become completely familiar with normal growth and developmental patterns in order to evaluate aberrations; (b) to determine the etiology of these aberrations whenever possible; (c) to document and correlate all etiologic factors with possible preventive benefits; (d) to diagnose all degrees of mental retardation with special reference to other handicaps; (e) to give a reasonable prognosis with regard to the ultimate growth and development of the mentally retarded individual; (f) to institute methods of treatment both preventive and actively therapeutic whenever possible; (g) to advocate and foster all methods of rehabilitation leading to the maximum degree of social adjustment; and (h) to stimulate research in all phases of these responsibilities.

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HABILITATION *of* MENTALLY RETARDED

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Although the problem of mental retardation is a medico-socio-educational one, the medical profession should take a prominent part in this field since there are so many physical and related emotional problems involved.

Many families of retarded children have a tendency to look to their personal or family physician for advice in planning for their child. There has recently been an increased interest in this field but resources are still quite limited. As new groups are being formed by the parents and interested community leaders, the physician is being called upon frequently to participate on boards and committees. The following article is designed to serve as a guide for the physician in carrying out his role as personal advisor or participant in community groups interested in helping mentally retarded children and their families.

Habilitation of the retarded individual starts in infancy. Too much emphasis cannot be placed on the importance of early recognition of mental retardation. Many emotional problems result unless the parents have had adequate interpretation and counseling concerning the child's limitations. Early planning and understanding make for a better personality development and a chance for the child to be able to use to better advantage the abilities he has.

HOW MUCH CAN RETARDED CHILDREN LEARN? When and where should a retarded child's education begin? Are the results worth the effort? These and other similar questions are being asked all over the world by parents and educators concerned with the present and the future of mentally defective children. The answers are known in a general way. The specifics must be worked out for each individual child.

Although a retarded child's learning capacity has been impaired, he can learn. He

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will never acquire knowledge at the speed or to the extent that normal children do, but properly trained he can achieve. The limits of his learning are set by his mental age, which can be determined by the administration of standard psychologic tests. Sometimes, under exceptionally favorable circumstances, he will exceed his mental age a little; sometimes he will fall below it. But generally it is a good and consistent



Figure 1. Like all children, retarded boys and girls enjoy their music period.

measure of his functioning. It should be the yardstick by which his achievements are judged.

A normal five year old child has a mental age of five years and is expected to talk plainly in sentences; to know his name and address; to recognize colors and to count to ten. A retarded five year old child who has a mental age of two, for example, would not be expected to do any of these things. He would be considered as functioning optimally at the two year old level if he talked, even poorly; if he were toilet trained; fed himself and were able to help in dressing and undressing himself. No amount of prodding or pushing could bring him up to achievement at his chronological age. Attempts to force him might result in severe emotional upset in a child who, left to function at his proper level, would remain well

adjusted. For this reason, formal speech training, for instance, would probably yield poor results and make the child unhappy while he was still functioning at two years of age. The methods of training for speech should be those ordinarily used for a two year old, such as talking to him, showing pictures, etc.

As time goes on, the retarded child, advancing at his own developmental rate, will grow. It may take him two or three years to achieve what the normal youngster achieves in one, but his learning abilities are on the increase. If he does not stop growing too soon, he may go on to more training, both at home and at school. The amount and type of training he will be able to absorb will depend on the extent of the impairment to his mental powers. There are three general levels of retardation: the

custodial, the trainable and the educable retarded. The custodial retardate has little capacity and usually functions below a year of age, all his life. Obviously, then, he may have no language and may be expected to function only as a young infant. Such individuals can accept little education of any sort and are usually best cared for in an institution from an early age, since the amount of time and care needed to look after them is just not available in the average home containing adults and other children. In Oklahoma institutionalization would be at Enid State School or at Pauls Valley, depending on the residence of the parents.

The trainable child is one who can be instructed in socialization, self-help and usefulness about the house, but usually cannot achieve beyond kindergarten or first grade school work. He may not even reach that

level. If his training is begun early and he is taught patiently and routinely to obey, to live by a schedule and to use his capacities for others, he can be a tolerable person to live with and add his share to the family life. He may go to special trainable classes where the emphasis is placed on achievement of specific concrete tasks within his mental age level. There are a few such classes in the public schools. If he is carefully and repetitively trained, especially at manual skills, he may be able to achieve semi-independence in closely supervised work of a very simple nature. Again, he may achieve beyond his mental age and expectancy if he is stable and has a docile, pleasant personality. He cannot do a job which requires judgment of any sort, but must have the judgmental problem such as how "full" is a "full" box solved for him by the use of mechanical aids or jigs.



Figure 2. Retarded boys are proud of their skill in making these large wooden blocks for young children.

The most numerous of all, are the educable or the usual Special Class child, who can do some academic work and may in some instances achieve as high as fourth or fifth grade capacity, although it may take him until he is 16 or 17 to do so. Classes for these children concentrate on practical training—such as making change in arithmetic, rather than on the imparting of any theories of mathematics. The majority of these youngsters, with proper vocational training and good personality characteristics, can hope to achieve a rather precarious economic independence. *The better the job training and counseling services provided, the better the chances of success in the world of work.* Again, however, since his ultimate capacity is at about mental age 8 to 10, as compared with the average of 13 or 14, and his ability to profit from experience is limited, the educable retardate must

not be expected to make judgments or to be very versatile. Generally, his ability will extend to only one job or, at the most, two very simple operations.

The retarded child can learn and should be educated. He should be helped to become all that he is capable of becoming. His training should begin at home, as with every other child, and he should be allowed to develop at his own rate. His achievements should be measured by his mental age. Only through opportunities for education at home, in school and in the community, can we give him the opportunities for enjoying life which even the least of our citizens deserve.

SCHOOL BY PRESCRIPTION: It might be said that retarded pupils should (as should all who fall in the exceptional group) go to school by prescription. Some general



Figure 3. Retarded girls can learn to use an electric sewing machine for the manufacture of simple articles.



Figure 4. Preparing and serving a simple meal gives a retarded girl a feeling of usefulness.

information taken from past experience and study may be used in the prescription. The child may tentatively be started at nursery school age on his own schooling prescription. As he develops his prescription changes. His progress determines the time at which academic subjects will be introduced, and their level of difficulty. The speed at which a child is expected to advance is also related to his own prescription and does not depend upon an age, be it chronological, mental, social or physical.

Present mental development in relation to the child's chronological age is important. This is commonly called the I.Q. It has been found that this score may vary with the test given and with the same test at different times. The quick and unthinking reaction to this variation is to condemn the tests or the testor. Closer scrutiny of the situation will show that far from hindering in the study of the child these varying results from different instruments and spaced

sessions are giving information that is valuable in understanding the abilities and handicaps of the child being studied.

No one is upset that the thermometer, the scales, and other measuring devices do not give a single number at all times for each patient. The information gained at the time the instrument is used, combined with past records, is important in making immediate decisions for the welfare of the patient and in planning ahead for him.

No one should expect *one* I.Q. to be used in planning the education of the retarded child. This does not mean that no I.Q. should be determined. Actually, the child's abilities and disabilities should be assessed for a period of time to determine his present and probable achievement. This assessment includes the child's present level of achievement with attention to the length of time and effort it has taken to reach this level. Physical and emotional handicaps with their severity and possible permanence



Figure 5. The mid-morning snack is the ideal time to teach retarded youngsters good manners.

should be included in the prognosis. As planning should not be done on an exact I.Q. number, it also should not be done alone on chronological age or mental age. Mildly retarded children with brain damage, deafness, visual difficulties, neurologic and orthopedic problems or perhaps serious deviations in behavior cannot be taught as are other retarded children with none of these hindrances to performance.

What in general have been the achievements of these children academically? Those in the custodial group with an I.Q. below fifty have been unable to profit from academic learning. We have seen persons with a forty-five I.Q. who have learned letters and some words. They have not reached the point of literacy or application of their skills. The years spent in this activity could have been better spent helping the child and adult perform more adequately in his personal care and in helping keep a healthful and orderly environment.

Academic schooling is usually thought of in reference to the so called educable child. Again, the extent of the education is limited to the ability of the child. By adulthood, some of the 50 to 70 range reach the fourth grade level. The retarded above this level, 70 to 90, fare better. They are better able to apply the skills which many of the lower group do learn, but cannot use. Some of these people are able to work at the 7th and 8th grade levels, but the majority are most comfortable with problem solving a little below this level.

This, however, does allow the person not otherwise handicapped, to enter industry, keep a job, own a car, pay rent, care for his family.

A great number of citizens at this level do not have the skills which they could have had if more attention had been paid to meeting their individual needs. What has happened?

Unfortunately most of the retarded are sent to school at the chronological age of six. There they experience several or many years of frustration in a world of subject matter which they cannot comprehend, given to them at a speed with which they cannot cope. This has a damaging effect upon their personalities and keeps them from reaching their potential.

Enthusiasts for heterogeneous grouping insist that "something rubs off the bright and normal children" that makes it just grand for the retarded to struggle in their midst. Something does "rub off." It is rejection. Awareness of a lack of ability destroys a sense of self-respect and worth. The constant failure and the social rejection encourage development behavior problems. Something does rub off, unfortunately.

Academic training is not for all the retarded; it should be on a prescription basis. The child's mental level must be considered first plus all other handicaps, physical and emotional. A realistic program should be

started at the child's present level. He can only develop as far as his innate capacity will allow at the speed his own handicaps set for him. *Academic training will be limited and should be aimed at assisting the pupil in his daily work, health habits and recreations.* He should learn to work with others and under supervision. Actually academic schooling for the retarded does not have the same content, methods, or ultimate goals as does academic schooling for the average and the superior. Academic schooling by prescription will yield the best results.

PLANNING FOR THE FUTURE OF RETARDED CHILDREN: The popular belief that retarded children die in their teens is no longer true. The use of antibiotics, better nutrition and general sanitary improvement have extended the life span of the retardate to middle age and beyond. It has also extended the years of care necessary for these individuals, and changed the expectancy patterns. Today, good and sound planning for the adult years of the retarded child is of the utmost importance.

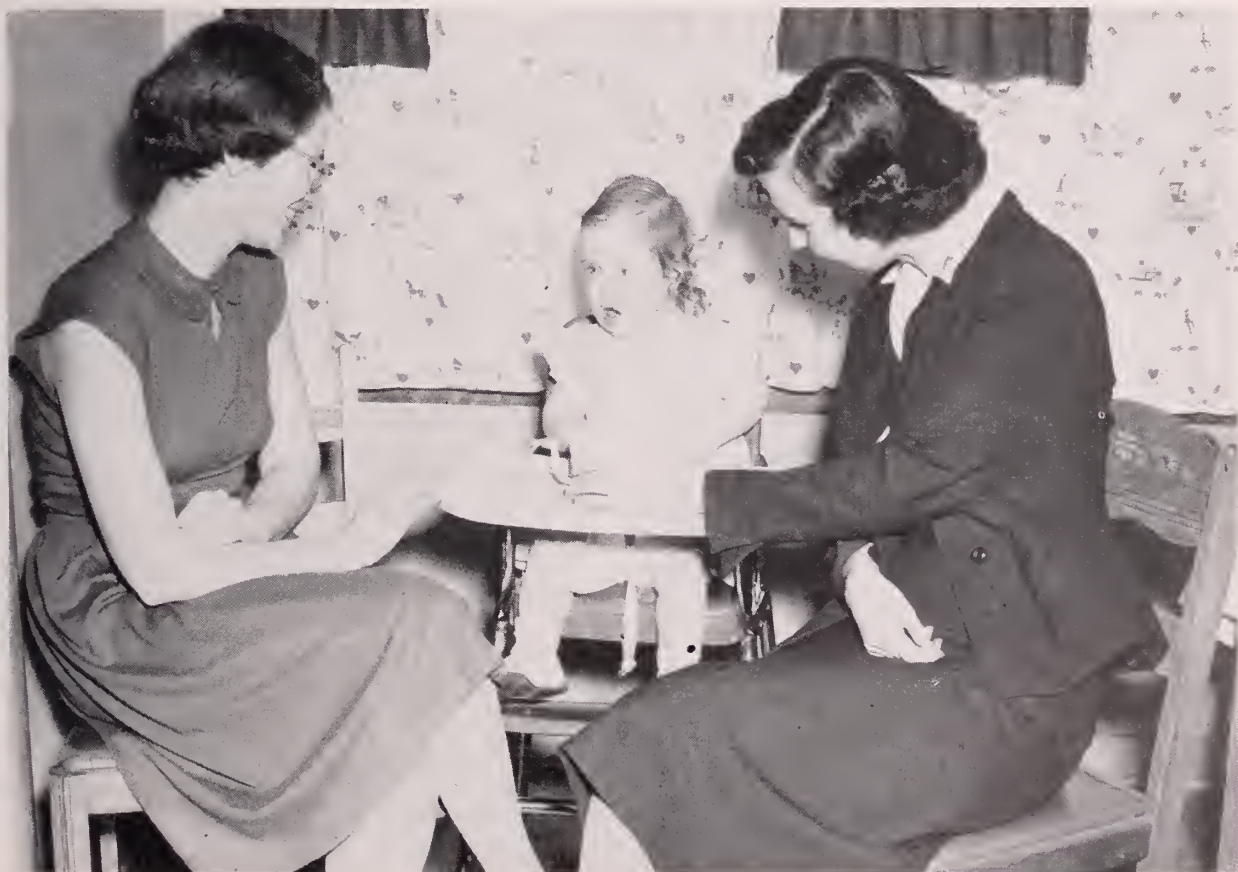


Figure 6. The Public Health Nurse assists the mother in the home to begin self-help skills as early as possible.

OCCUPATIONS SUITABLE FOR VARIOUS MENTAL AGES BOYS

M.A. 5	Clean Automobiles Teamster Drive Truck Helper on Truck	M.A. 9
(a) Rope Braiding Stable Work Clothes Sorting Handle Freight Brush Making Handle Garbage Net Making Handle Cinders Garden Work		(a) Shoe repairing
(b) Sandpaper Furniture Scrub Floors Operate Mangle		(b) Operate foot power printing press Block paper into pads Repair furniture Paint toys Harvest crops Learn alto horn and drums Fancy brush making
M.A. 6	(a) Blacksmith Helper Repair mattresses Painter's Helper (b) Clean boiler tubes Load hay Cut hair and shave Shingle and set glass Make wooden toys (c) Machine operator: automobile indus. punch press trimmer buffer drill press grinder sprayer gluing leather cutter Tempering clay (machine) Peddler Stock boy Press clothing Baker's helper Lather Assembling dials (electrical) Feeding tack machine Soldier	(c) Machine operator toner straightening wire-bending Shackling (food products) Operate motion picture machine Vest maker
(a) Laundry Work Farm Work Dairy Work (b) Mow Lawn Mix cement Kitchen Scullion Bricklayer's Assistant (c) Common Laborer		M.A. 10
M.A. 7		(a) Carry mail (institution) Printing (b) Set and sort type Paint signs Electrician's Helper Steamfitter's Helper Make forms for cement Shellacking and varnishing Learn bass horn cornet (c) Auto-top builder (hand) Operate gear-cutting machine Boilermaker apprentice Shipping-clerk
(b) Rough Painting Drive Team Plow Cane Chairs Make Brooms Simple Carpentry (c) Spray Paint		

Table taken from: "Clinical Psychology of Exceptional Children" by C. M. Louttit, Harper and Brothers Publishers, New York, pp. 132, 133.

The normal child's life moves from home, to school, to vocational training and to work. So must, within limits, the life of the retarded child. He must be educated at home and in his special schools to take full advantage of his capacities, no matter how small. When he has reached his academic satiation point, a plan must be made for the next step in his development. Depending on his ability, personal adjustment and home situation this step may lead toward institutionalization, sheltered workshop placement or supervised employment in industry or service occupations. It is possible too, that he may move first in one direction and then another. But move he must, along his path that is his life.

The very low level or custodial child will have been institutionalized very early and for him there is no need to plan at all. But the larger groups consisting of the trainable (approximately 30 to 50 I.Q.) and the educable (50 to 75 I.Q.) need to be thought about carefully.

Current thinking favors the use of sheltered workshops for both of these groups. For some individuals this kind of employment is ultimate—it is the best adjustment they can make to a work situation. For many it can be used as a training center—a jumping off place. For these, jobs can be found in industry and in service trades.

OCCUPATIONS SUITABLE FOR VARIOUS MENTAL AGES GIRLS

M.A. 5	(b)	Baste canvas and patches by hand
(a)	Plain and Italian hemstitching	Serging sleeves (machine)
Domestic Work	Cross-stitch	Time keeper
Operate mangle	Braiding	Operate tag-cutting machine
Prepare vegetables	Simple packing of small articles	Wrapping
Sew carpet rags	(c)	
(b)	Bunch maker (tobacco)	M.A. 9
Follow pattern	Machine pack tobacco	(a)
in simple sewing	Bottle vinegar	Knit stocking and mittens
(c)	Fell sleeves by hand	Make cloth toys
Folding paper boxes	Case sausage	Make pottery
	Housework	Operate automatic rug loom
M.A. 6		Cut out and make dresses
(a)	M.A. 8	Plain cooking
Hand ironing	(a)	Sew mounts on card
Folding clothes	Rug weaving	Sew buttons
Hand weaving	Basketry	(c)
Knitting	(b)	Core maker
(b)	Operate bead loom	Operate drill press
Crochet open mesh	Stencil work	Assemble metal horns
Weave rag rug with pattern	Dress doll without help	M.A. 10
Simple laundry work	Operate scarf loom	(b)
(c)	Makes dresses cut out by others	Raffia and reed work (pattern)
Operate small punch press	High-grade domestic work	Swedish embroidery
M.A. 7	(c)	Operate sweater machine
(a)	Factory inspection of auto headlights	Operate looper for stocking toes
Hand Sewing		(c)
Machine sewing		Sales girl

Table taken from: "Clinical Psychology of Exceptional Children" by C. M. Louttit, Harper and Brothers Publishers, New York, pp. 132, 133.

A sheltered workshop is a place where the handicapped individual can work and learn at his own pace and without competition from others more capable than himself. It gives the slow, retarded worker a chance to build his skills high enough, so that he can be accepted on the regular labor market. Without his training in the workshop, he may fail at making any kind of a living.

These workshops, often helped by state and federal grants, are now springing up all over the country. There is the McDonald Center in Florida; the Opportunity Center in New Jersey; the AHRC workshop in New York City and hundreds more, less well known because of their recent establishment. Some of these workshops specialize in packaging jobs—such as putting poker chips in a cylindrical box; or stuffing toys into Christmas stockings, or threading screws on locks. Others manufacture small items such as red danger flags, or hand waxers or simple toys.

In every successful workshop the formula appears to be the same. First, comes a complete evaluation of the trainee; his mental level, manual abilities, social skills and personal qualities. If he is considered suitable, he then enters the long period of repetitious training that he will need in order to learn how to work. For six months to a year he will serve without pay. At the end of this time, he will be put on a small stipend and considered an apprentice. Then according to his level of performance and his speed of learning, he may be advanced to regular job status, and when he is ready, moved into a job outside of the workshop. All the time he has been learning, he has been receiving counseling, and his counselor has been looking for the right job for him.

The workshop staff must still carry him for a while, and must leave the door open to him. The retarded worker, even when he gets along well in the usual routine, has no capacity for meeting a crisis. If he loses

his job, or gets in debt, or fights with his landlord, he may not have any idea how to deal with the situation. At such times he will need guidance and support. A few states set up general counseling centers to take care of this need, and it is anticipated that establishment of such centers will save these states considerable money by decreasing welfare loads and cutting down on the number of petty crimes attributed especially to the educable type retarded male.

But suppose that the retarded individual is found unsuitable for workshop training or taken in and fails to achieve any job status? Or what about the boy or girl who is able to work in a closely supervised situation and then, because of the death or illness of the parents, becomes incapable of functioning in the community? What about their future?

The answer lies in a careful look at the institution, which can protect the retarded individual and provide him with a home. But institutions too are going to have to change. The old institution with its isolated location, understaffing, and lack of research facilities will in the future give way to Mental Retardation Centers which will be located in the more populous areas of the state, in order to bring to them the best type of professional staff and to utilize existing medical and educational facilities. The aims of such a Center will be to train professional personnel; to explore the causative and management problems of mental retardation through research; to educate retarded children; and to give a home to retarded individuals when it is no longer feasible to keep them at home.

The new institutions will have an evaluation center, a day school, research laboratories, sheltered workshops and training facilities. A child may be diagnosed, attend school, and get his vocational training all at this one center. Later perhaps, he will move into the institution, going home weekends and working as a part of the institution staff. Just as the normal child leaves his parents in the early twenties to build his own life, the retarded child will find a home and a future in the institution. His parents will be relieved of worry about his

safety when they are gone; the retardate will have a peer group and work to do. He will add his bit to the carrying on of the institution. Last but not least, when his working days are over, he will have shelter, food and medical care as well as cronies to sit in the sun with.

The 756 retarded people rehabilitated in 1956 proved their potential for economic productivity. Of the total, 96% were unemployed when accepted for rehabilitation; 318 or 42% had never worked; 80.2% were dependent on their families; 8% were on relief. Before rehabilitation the group earned about \$32,100 annually; after rehabilitation their estimated annual earnings were \$1,265,150, nearly 40 times the total earning before rehabilitation.

The future of the retarded as it has been painted here, may not seem to most of us a rewarding one. Yet, we must take into account the restrictions placed upon him by his limited understanding, lack of judgment and general inability to protect himself in our world. He cannot fend for himself. He remains the small child who must always be held by the hand. Yet, since it is also his right to have as much of a life of his own as he can handle—he should not be over-protected. He should be allowed to work.

There is a motto that expresses the aims of life for the retarded just as well as it does for the college students for whom it was originally written. It reads, "Let each become all that he is capable of becoming." A philosophy of life for the retarded child, based on such a slogan will not fail to give due weight both to his liabilities and his assets.

The basic philosophy of the physician is to help his patients achieve their maximum potential in spite of handicaps. This applies in the field of mental retardation, a branch of the medical field.

The children shown in the pictures are from Sunnyside School in Tulsa. This school is concerned mainly with the trainable retarded (individuals with an I.Q. below 50).

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The Serum Glycoprotein as an **INDICATION of DISEASE PROCESS**

M. R. SHETLAR, Ph.D.*

It has been known for many years that several serum proteins contain appreciable amounts of carbohydrate, and consequently, may be called glycoproteins. Since no physiological role was known for these protein bound carbohydrates, this knowledge was assumed to have little practical importance. During the last ten years, however, research in our laboratory and in other laboratories has shown that the serum glycoproteins have considerable significance in clinical chemistry. This information in turn has stimulated many of the more practical investigators to enter this field of research.

Terminology

The terminology in this field is currently confusing; however, the major scientific workers in this field have agreed to the following definitions.

1. *Serum Glycoprotein*—the total protein bound carbohydrate found in serum; determined by precipitation of the protein usually with ethanol followed by quantitation of the carbohydrate moiety by determination of hexose or hexosamine. This fraction has previously been called Serum Polysaccharide by many workers (Siebert et. al., Shetlar et. al., etc.).

2. *Seromucoid*—that portion of the serum glycoproteins which is not precipitated with perchloric acid and is precipitated with phosphotungstic acid. This fraction is similar to that obtained from serum

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Doctor Shetlar is a member of the American Chemistry Society, Society of Experimental Biology and Medicine, American Association of Cancer Research, American Association of Clinical Chemistry, American Association for the Advancement of Science, New York Academy of Science, Oklahoma Academy of Science and Alpha Mu.

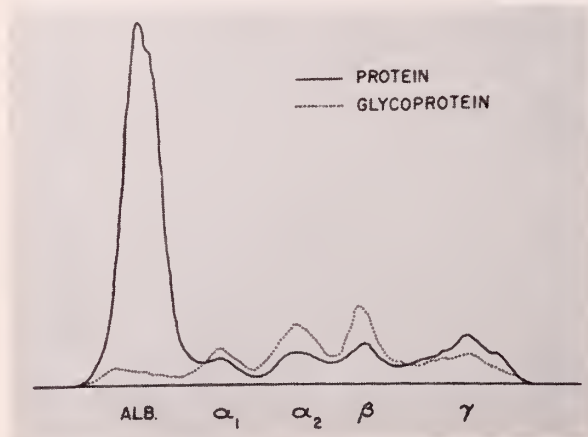
after coagulation of the other proteins by heat, and has previously been called serum mucoprotein by many workers (Weimer, Winzler, et. al., Shetlar, et. al., etc.). This fraction is quantitated by tyrosine, hexose, hexosamine, or protein determinations.

Fractionation of the Serum Glycoprotein

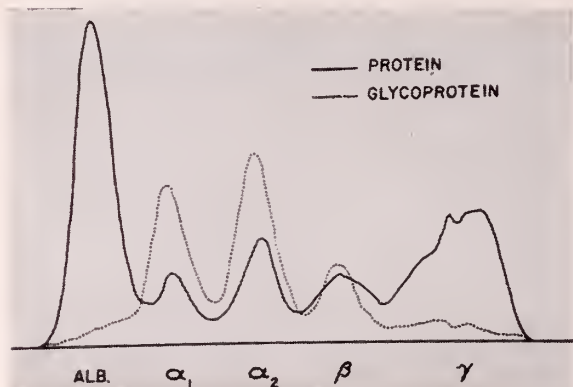
All of the serum globulins contain appreciable amounts of bound carbohydrate and therefore may legitimately be called glycoproteins. The amount of carbohydrate bound to each serum fraction may be determined by paper electrophoresis followed by staining of the paper strip with periodic-acid-Schiff reagent.¹ A companion sample to be stained with bromphenol blue for the detection of serum protein is subjected to electrophoresis at the same time. In Figure 1 are shown pictures of densitometer tracings of glycoprotein and protein paper electrophoretic strips of serum from a normal

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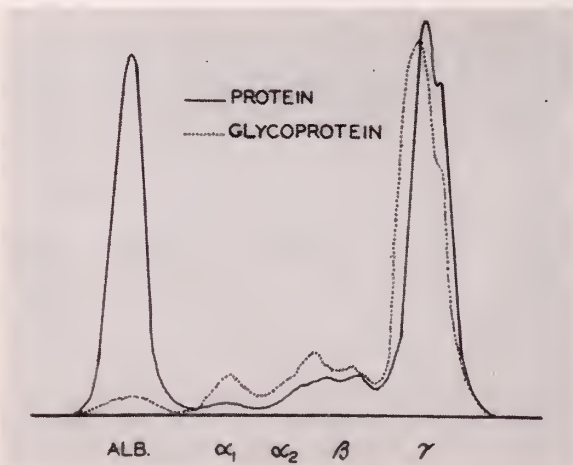
Figure 1. Typical densitometer tracings of paper strip electrophoretic patterns. The solid line (—) indicates protein concentrations; the dotted line (. . .) indicates glycoprotein concentration. Note relatively low concentration of glycoprotein in the albumin fraction.



A. Normal patterns



B. Patterns from a patient with active rheumatoid arthritis. Note the increase of glycoprotein in the alpha-1 and alpha-2 fractions.



C. Patterns from a patient with multiple myeloma. The abnormal globulin is in the gamma-globulin range in this case, and has a relatively high carbohydrate content.

subject and from patients with rheumatoid arthritis and multiple myeloma.

Results

The results to be discussed in this paper are largely derived from our own laboratories. It is not meant to infer that these are the only studies in this field, or that the results given are the first reported concerning a particular diseased state. Many workers have contributed to this field: Siebert, et. al.,² Winzler, et. al.,³ Weimer, et. al.,⁴ Boas, et. al.,⁵ Keyser, et. al.,⁶ Stary, et. al.⁷ should be mentioned as devoted researchers in the field of serum glycoproteins. Aside from being more readily available, the data presented here also have the advantage that all of it was obtained by the same analytical methods and are, therefore, directly comparable.

The Normal Serum Glycoprotein Level

The normal serum glycoprotein level changes with age⁸ (Table 1), being lowest in fetal samples and highest in elderly subjects. There are apparently no sex differences. An elevation occurs in serum glycoproteins in late pregnancy; however, no change of seromucoid is found. Fetal blood is quite low in seromucoid content.

The variation in one individual (Table 2) has now been made over a period of over ten years. Forty-eight samples were taken during this period. Variations within the normal limits of serum glycoprotein and seromucoid levels were noted during the time studied. Some of this variation is due to experimental error in making the determinations. Minor infections caused definite changes in both serum glycoproteins and seromucoid levels. It would appear likely that subclinical disease states may influence these levels to a minor extent.

Changes in Diseased States

Changes in a number of diseased states are summarized in Table 3. Striking elevations of both serum glycoprotein and seromucoid occur in malignancy,^{9,10} active rheumatoid arthritis, active gout,¹¹ active rheumatic fever,¹² and tuberculosis.¹³ The glycoprotein levels are only slightly elevated in degenerative joint disease or in inactive rheumatic fever. No elevation was found in

Table 1. Serum Glycoprotein in the Normal Human Subject.

Condition	No.	Serum Glycoprotein Hexose		Seromuroid Hexose Mg/100 ml.
		Mg/100 ml.	PR*	
Normal				
Fetal	15	80 (62-103)	1.41 (1.05-1.77)	6 (3-9)
3-8 yrs.	8	105 (94-118)	1.60 (1.47-1.82)	—
21-49 yrs.				
Males	18	110 (93-126)	1.58 (1.26-1.90)	
Females	10	111 (100-125)	1.58 (1.42-1.81)	12 (8-18)
61-85 yrs.	15	129 (104-138)	1.79 (1.62-2.06)	
Pregnancy (8-10th month)				
Primigravida	13	152 (120-172)	2.46 (2.26-2.63)	
Multigravida	16	150 (123-191)	2.42 (1.96-2.82)	12 (8-14)
Pregnancy (4th month)	6	122 (110-136)	1.87 (1.70-2.10)	

*Grams bound hexose per 100 grams of serum protein.

Table 2. Variation of Serum Glycoprotein in One Individual Over a Ten Year Period.

	Serum Glycoprotein		Serum Protein	Seromuroid
	Mg/100 ml.	PR*	Gm/100 ml.	Mg/100 ml.
Average Normal (48 samples)	116	1.66	7.02	16
Range	103-128	1.40-1.77	6.23-7.77	12-18
Respiratory Infection				
with Fever 1)	162	2.15	7.52	23
2)	164	2.11	7.78	21
Respiratory Infection				
without Fever	139	1.77	7.89	—

*Grams of bound hexose per grams of serum protein.

Table 3. Changes of Serum Glycoproteins in Diseased States.

Condition	No.	Serum Glycoproteins Hexose		Seromuroid Hexose Mg/100 ml.
		Mg/100 ml.	PR	
Normal	80	114± 3	1.59± .03	11± 1
Malignancy	105	171± 3	2.69± .05	28± 2
Benign Lesions	31	123± 3	1.96± .04	—
Rheumatoid Arthritis				
Inactive	8	150± 4	1.91± .03	20± 2
Activity 2	13	176± 15	2.26± .06	30± 2
Activity 3 & 4	12	197± 6	2.73± .06	30± 1
Psychogenic Rheumatism	3	118	1.71	12
Degenerative Joint D.	28	134± 3	1.85± .02	13± 1
Gout, Active	2	188	2.65	22
Gout, Inactive	6	138	2.04	15
Rheumatic Fever				
Active	18	205± 7	2.78± .10	30± 2
Inactive	21	104± 4	1.91± .06	15± 1
Tuberculosis				
Minimal Active	6	144± 5	2.04± .07	19± 4
Moderate Advanced, Active	13	161± 7	2.21± .08	20± 2
Far Advanced, Active	23	185± 7	2.44± .08	19± 1

Table 4. Distribution of Serum Glycoprotein in Among the Various Serum Fractions.

Condition	No.	Bound hexose* associated with					Total	Seromucoid
		Albumin	Alpha-1	Alpha-2	Beta	Gamma		
Normal	13	15	16	34	28	22	115	14
Rh. Arthritis								
Severe activity	12	14	35	81	38	29	197	30
Cancer	5	18	48	72	32	18	188	41
Late Pregnancy	2	12	22	49	44	25	152	16

*Mg of bound hexose per 100 ml. of serum.

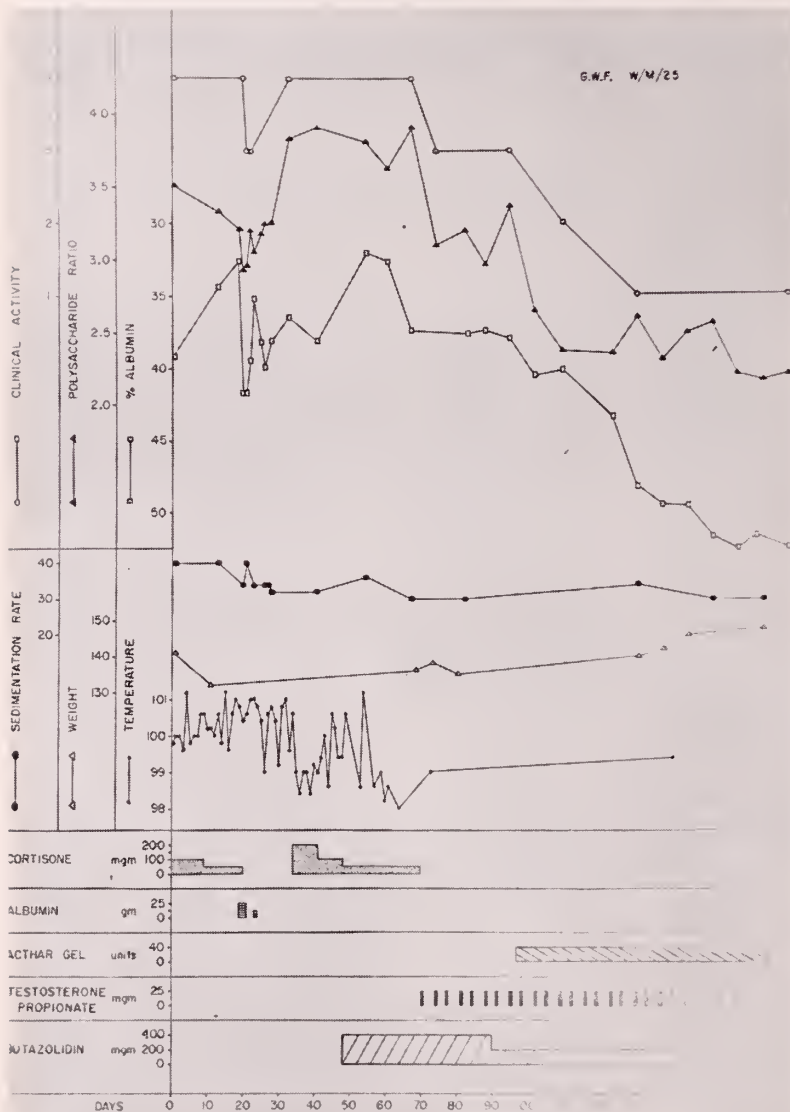


Figure 2. Serial studies of a patient with rheumatoid arthritis. Clinical activity is indicated by the open circles (o—o), and changed during the course of the study from Activity 4 (severe) to Activity 1 (inactive). The glycoprotein (polysaccharide ratio) (Δ—Δ) parallels the clinical activity falling as the disease process becomes less severe. Albumin levels (□—□) also parallel clinical activity, the albumin rising as the activity decreases. The erythrocyte sedimentation rate (●—●) in this case has little correlation with clinical change.

patients with psychogenic rheumatism.¹¹ Patients with benign tumors exhibited only slight elevation.⁹ Diseased conditions not listed in the table which have been found to have definitely elevated glycoprotein levels are cholelithiasis, ulcerative colitis, nephrosis, pemphigus, lupus erythematosus, and periarteritis nodosa. Major operations (Figure 4), fractures, and severe burns also cause decided elevations. States in which definite elevations do not occur are anemia, diabetes, hyperthyroidism, hypothyroidism, hypertension, and pituitary insufficiency.

The Effect of Treatment

Serial studies of serum glycoprotein and seromucoid levels have been made following therapy of patients with rheumatic fever,¹² rheumatoid arthritis,¹⁴ cancer,¹⁵ and tuberculosis.¹³ In general, when the clinical condition of the patient improves, the serum glycoprotein and seromucoid levels fall. In Figure 2, a serial study of a patient with rheumatoid arthritis is graphically presented; a similar study of a cancer patient is shown in Figure 3, and of a severely burned patient in Figure 4.

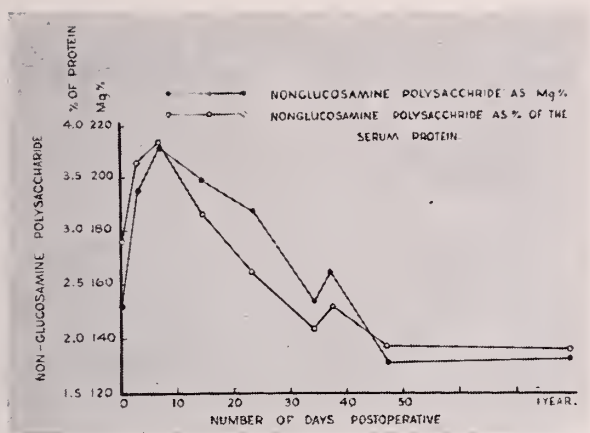


Figure 3. Serial studies of glycoprotein (nonglucosamine polysaccharide) following surgical removal of a carcinoma of the cervix. Following surgical removal on Day 0, the already elevated glycoprotein level became even higher and then fell off, becoming normal about 50 days post operative. Deep x-ray therapy started on the 32nd day was followed by an increase of serum glycoprotein.

Distribution of Serum Glycoprotein Among the Serum Protein Fractions

The distribution of serum glycoprotein as measured by bound hexose has been studied in a preliminary way in cancer and pregnancy, and in detail in normal and arthritic subjects.¹⁶ Results are summarized in Table 4. It would appear that the elevated serum glycoprotein levels which occur in the various conditions described above are not caused by alterations in only one serum electrophoretic fraction, but different fractions may be characteristically altered in different diseases. Cancer is characterized by elevations of seromucoid and alpha-1 globulin bound hexose. Pregnancy results in increases in alpha-2 and beta-globulin bound hexose without noticeable increase of seromucoid. Arthritis, which is probably characteristic of inflammatory processes, exhibits elevations of the hexose bound to seromucoid, alpha-1, alpha-2 and beta-globulin fractions.

Discussion

It has been postulated by Seibert, et. al.² that the serum glycoproteins increase due to tissue destruction. This theory has been developed with the additional concept that the elevated serum glycoproteins come directly from injured tissue. Since tissue contains considerable quantities of acid muco-

polysaccharides (containing glucuronic acid) and, since serum appears to contain very little of such material even in inflammatory states, the postulation that the elevated glycoprotein results from tissue destruction appears doubtful. However, acid polysaccharides may be rapidly removed from the blood by some organ, while the neutral glycoproteins may be only slowly removed. Research to test this postulation is currently underway in our laboratories.

Shetlar, et. al.⁹ suggested that the elevation of serum glycoprotein might be correlated with proliferation rather than destruction of tissue. Elevations of bound hexose in pregnancy and in prostatic hyperplasia were cited as examples of conditions in which destruction of tissue would be negligible.

Later work indicating that different fractions are involved in the elevation in different diseases makes possible reconciliation of the two theories, i.e., both tissue destruction and repair may result in elevation of globulin fractions which are rich in bound carbohydrate. Use of more refined technics are required to solve the questions of the origin, fate, and physiological function of the serum glycoproteins.

Summary

Determination of the total protein bound hexose or hexosamine (serum glycoprotein) serves as a sensitive measure of the presence of many disease processes. This de-

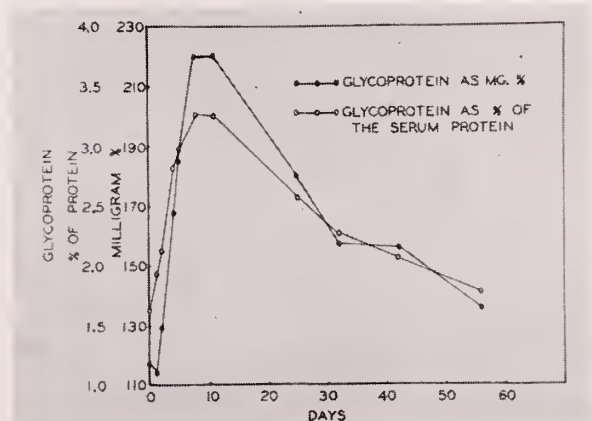


Figure 4. Serial studies of a severely burned patient. Maximum elevation of glycoprotein was attained eight days after the injury. The levels became normal between the 50th and 60th day.

termination is particularly useful in evaluating the degree of inflammation in various conditions and, therefore, has value in following the course of treatment of patients with these conditions. Different diseases result in elevations of different carbohydrate rich serum proteins. The understanding of the origin, function, and fate of these serum glycoproteins awaits further research.

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BIostatistical UNIT

A biostatistical unit was established at the Medical Center in April 1957, and is located in the Annex Building on the medical school campus. Support for the establishment of this new facility was obtained through a grant from the National Institutes of Health.

The unit is under the direction of Doctor Carl R. Doering, Professor of Biostatistics, and is a part of the Department of Preventive Medicine and Public Health, of which Doctor Kirk T. Mosley is Chairman. The purpose of the unit is to provide formal training and assistance in medical biostatistics for graduate students in the medical sciences, and to provide medical statistical consultation services to the basic science and clinical departments in the Medical Center engaged in medical research, as well as to any physician in the state desiring statistical help. Doctor Eugene R. Flock and Doctor James A. Hagans are the two Senior Fellows in Biostatistics in the unit. These two physicians are full-time graduate students at the Medical Center and are taking courses leading to a Ph.D. degree. In addition, there are two part-time graduate students also taking courses leading to advanced degrees.

Doctor John Brixey of the Department of Mathematics at the Oklahoma University and Doctor Carl Marshall of the Department of Mathematical Statistics at Oklahoma State University are consultants to the unit, and assist in its training program. Mr. Ed Brandt, Sophomore Medical Student, who has an M.S. degree in Mathematics, is a student assistant to the unit. In the near future a mathematician with special training in statistics will be added to the staff.

During the first year in operation, the biostatistical unit has provided statistical consultative services to most of the major departments engaged in investigative medical research at the medical school, the University Hospital, the Oklahoma Medical Research Foundation, the Veterans Administration Hospital, the Children's Memorial Hospital, and to several physicians in private practice who were also engaged in investigative medicine.

Individuals with mathematical, biological, or medical science backgrounds who have their A.B. or B.S. degree and desire training in medical biostatistics should contact Doctor Carl R. Doering and/or Doctor Kirk T. Mosley at the medical school for further information and details of the training program.

Juvenile Rheumatoid Spondylitis: A Case Report of **LUMBAR OSTEOTOMY**

STONIE R. COTTEN, M.D.*

Some authors tend to abandon the designation, Still's disease, for the complex manifest by splenomegaly, lymphadenopathy, anemia, and chronic arthritis seen in children. This marked systemic reaction is occasionally seen in adults and these writers believe that the difference between the adult and juvenile form is explained by the interference with normal growth plus the tendency of children to manifest a more severe systemic reaction than adults. Still's disease has been defined as rheumatoid arthritis starting before the age of sixteen years with evidence of chronic multiple joint involvement, excluding ankylosing spondylitis, rheumatic fever, and lupus erythematosus. This group comprises between 3.5 and 4 per cent of all patients with rheumatoid arthritis.

The joint pathology seen in Still's disease is not essentially different from that observed in rheumatoid arthritis, and from this standpoint recognition of this condition as a separate entity is not justified.

In the interest of clarity it might be worth while to point out that the adult counterpart of Still's disease is known as Felty's syndrome. This condition was first described in 1924 and includes patients showing splenic enlargement and leukopenia, associated with rheumatoid arthritis. Ramond and Chauffard, in 1896, were the first to report gross enlargement of the spleen in rheumatoid arthritis and the following year Still published his monograph on this occurrence.

No definite cause is known for juvenile rheumatoid arthritis. The focal bacterial infection theory is among the oldest and most widely accepted. Rich has pointed out that the rheumatoid reaction is a collagen fiber response immunologically to antigens. Brown goes a step farther and explains the antigen production on the basis of a chronic

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intracellular infection by pleuro-pneumonia organisms. Others point to an infection by a virus as a predisposing factor to this collagen reaction. The high incidence of antecedent respiratory infections in these patients has drawn attention. Stress and adaptation syndromes as described by Selye when applied to exhaustion, infection, emotional trauma, etc., are probably the most plausible and comprehensive explanations and gain support by the remissions brought on by cortisone, ACTH and testosterone. Still thought to be an important factor is heredity, since in 20 per cent of these patients a definite family history of arthritis is obtained.

When the disease occurs in children under 12 years of age most cases conform to the clinical description by Still in his original monograph. Characteristically one finds severe arthralgia followed by migratory arthritis, high spiking fever, urticaria or maculapapular eruption, generalized lymphadenopathy, splenomegaly and hepatomegaly in the acute cases. The less common manifestations include polyserositis, myocarditis, endocarditis, subcutaneous nodules, cirrhosis, and encephalitis. Anemia and leucocytosis are invariably present. The erythrocyte sedimentation rate which is elevated may or may not reflect the severity of the disease. The fever may show daily remissions and later may occur in periodic bursts.

The acute phase always gives way to a less active process, but remissions are rare during the early years of the disease. The chronic arthritic which follows the acute

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systemic reaction is not unlike the adult form of rheumatoid arthritis. There is joint effusion, periarticular swelling, loss of motion, local heat and muscle spasm. Redness of joints is rare except in infants. Joint stiffness is the predominant complaint. Although the above picture is the classical one, a bizarre totally atypical course is common.

The joints most commonly involved are the knees, hands, wrists, elbows, ankles, cervical spine, shoulder and temporomandibular joint, in that order. Pickard is quoted as saying, "rheumatoid spondylitis (Marie Strumpell) does not occur in children." The knees show a fifty per cent incidence of deformity during their acute stage, but far less residual difficulty than the elbow. It is rare for the elbow to escape residual defects, but this joint is rarely ankylosed. The temporomandibular joint behaves in a similar manner. The shoulder and cervical spine are liable to bony ankylosis. A fusion at one or two, or more, levels in the cervical vertebrae is peculiar to this disease. Limitation of rotation, flexion and extension of the cervical spine is emphasized by Still.

Interference with the growth locally may produce in addition to the fused cervical vertebrae shortening of one or more fingers. Failure of the mandibular growth results in the production of a bird-like facies. (Brachygnathia).

Although some authors think that the course of healing is better in a child than in an adult, the disease is said by others to be unlimited by puberty. Johnson and Dodd emphasize that the disease is not self-limited, and report a case followed for forty years. The patient had a bout of active arthritis forty years after the onset of the disease at the age of nine.

Splenomegaly is more characteristic of systemic lupus erythematosus than of rheumatoid arthritis. The finding is rare in adults, being usually limited to the juvenile form of the disease.

The incidence of eye manifestations in patients with Still's disease is said by Smiley and May to be higher than in the general population. These manifestations were listed as iridocyclitis, band keratitis, cataract, vitreous opacities, secondary glau-

coma, and phthisis bulbi. Of the patients in the above authors' series, 5.5 per cent demonstrated eye manifestations, compared to 2.1 per cent of the general population.

The laboratory findings in this disease are of considerable interest. The hemoglobin is from 3 to 15 grams, with a white count of 10,000 to 100,000 white blood cells per cubic millimeter. The sedimentation rate is usually in the range of from 40 to 50 mm. per hour. The synovial fluid, which is cloudy, may contain over 5,000 white blood cells per cubic millimeter, over half of which are polymorphonuclear cells. The normal is 1080 per cubic millimeter. When three drops of glacial acetic acid are added to the synovial fluid from a patient with rheumatoid arthritis there is a cloudy-milky precipitate. In the normal subjects there will be aropy strand-like precipitate formed.

The antistreptolysin O titer is thought to be an important differential point between rheumatic fever and rheumatoid arthritis. No patient with juvenile rheumatoid arthritis had an A.S.O. titer over 250 Todd units in the series of cases reported by Johnson and Dodd. The glucose tolerance test shows a disturbance in juvenile rheumatoid arthritis which is not of the diabetic type. It is characterized by a high peak with a rapid fall to normal blood sugar levels.

The differential diagnosis of this condition includes consideration of disseminated lupus erythematosus, rheumatic fever, tuberculosis, Henoch-Schonlein's purpura, leukemia, infectious arthritis, scleroderma, periarteritis nodosa, polyserositis and dermatomyositis.

Therapy consists of rest, including a minimum of ten hours of bed rest and one hour of rest morning and afternoon. Physical therapy may consist of mild massage each day by a member of the family. Massage should be to the muscles only. Infrared light can be used 15 to 20 minutes twice daily to the larger joints. After heat, passive motion is carried out through the fullest range of motion. Active movements are added gradually.

The application of simple splints, either plaster or malleable aluminum, is the most helpful orthopedic procedure. The involved

part should be in a position of comfort with the splints being worn only part of each day or night. The splints will prevent the more common deformities, i.e., flexion contractures of the knee, wrist and hips; adduction contractures of the shoulders and pronation of the feet.

Other factors of therapy include supportive measures of adequate nutrition and management of the anemia. Occasionally therapy will relieve boggy joints. Psychotherapy is of great importance.

Medications in use are salicylates, para-amino benzoic acid, gold preparations, steroids, and phenyl butazone. Salicylates offer little in the treatment; the steroids are disappointing. Trials of Butazolidin have been encouraging. Chloroquin compounds, intravenous nitrogen mustard and ACTH are currently in use and evaluation of these agents is forthcoming.

In Felty's syndrome and possibly in Still's disease, splenectomy is advocated to counteract hypersplenism.

Case Report

C. F. . . . was initially seen on 10/25/56 in this clinic. At that time she was a 16 year old white female who was seen at the request of the Child Welfare Department. The patient stated that approximately four years previously she began noticing a severe, aching pain in the low back and was unable to stand straight. This became progressively more severe until the patient became fixed in a flexed position. Associated with this was a severe pain in the right hip and inability to extend the hip to place her foot flat on the floor. She complained of a crowding of the abdomen, shortness of breath, inability to eat a full meal. She kept the right knee internally rotated and stated that she didn't have much strength, not enough to stand up straight. She gave a history of severe early morning stiffness and fatigability. There was no menarche.

Past illnesses included pneumonia at 10 to 12 years of age. The patient is the fifth sibling of ten. She was seen in March, 1955, in the Medicine and Radiology Clinic at the University Hospital and her condition was diagnosed as rheumatoid arthritis, secondary to tuberculosis of the spine or possibly



injury. The father deserted the family in 1948, and in 1953 died in a fire. Her oldest sister is mentally retarded. Physical examination revealed a small, pixy-like youngster, very thin, completely flexed with the right lower extremity inwardly rotated. She had a pixy-like face and a high-pitched voice. There was pronounced kyphotic position of the thoracic spine. The lower ribs nearly touched the iliac crest. The chest was flattened in the AP diameter and expansion was zero. The breasts were small sized. It was impossible to lay the patient flat for abdominal examination. There was pain and restriction of motion in the right hip. The right lower extremity was carried in internal rotation. The neck motion was limited in all ranges except extension.

Laboratory examinations at this time revealed an A.S.O. titer of 250 units; sedimentation rate was 77-mm. in one hour, with a normal hemogram. The urinalysis was normal. The total protein was normal with an increased globulin. The latex fixation test was negative.

The diagnosis was initially that of rheumatoid spondylitis. Doctor W. K. Ishmael saw the patient and agreed with the diagnosis and suggested that it was most likely induced by a previous infection, and associated with some pituitary failure. The pituitary involvement was suggested on the basis of the voice changes and retardation of growth.

Roentgenograms, obtained from the University Hospital, taken on 1/26/55 and 3/10/55 showed the sacro-iliac joints to be fuzzy and slightly more sclerosed than one would expect normally. There was an increase in the dorsal kyphosis of the spine, centering around T-10. There were epiphyseal changes seen in the lower thoracic vertebrae.

Initially the patient was placed on Butazolidin Elixir, drams one q.i.d., and Os Vim,[®] t.i.d. and Plestran,[®] b.i.d. One month later the patient was given Nilevar,[®] 10 mgs., b.i.d. On December 10, 1956 the sedimentation rate was 55. At this time she was noted to have had her menarche. In March 1957 the patient had a flare-up concomitant with an upper respiratory infection. She was treated with antibiotics with good results. After a period of six months of medical management the patient showed weight gain of 10 pounds.

On 6/17/57 the patient was admitted to the hospital and was seen by Doctor H. B. Shorbe. Roentgenograms taken then showed a marked curvature posteriorly. The vertebrae were noted to be firmly fixed. It was elected to do an osteotomy at the first and second lumbar levels.

On 7/5/57 an osteotomy of the spine was done between L-1 and L-2 and between L-2 and L-3. The facets were found to be fused but the ligamentum flavum was normal at this time. After osteotomy the hips and the body were hyperextended. The patient was placed in a spica cast in a hyperextended position. On 7/25/57 the patient was dismissed after a relatively uneventful post-operative course. Some difficulty with muscle spasm and paralytic ileus was seen early and was controlled by medication. After dismissal the patient was hospitalized at Children's Convalescent Hospital until



8/22/57 when she was re-admitted. The cast at this time was changed to one from the symphysis pubis to the manubrium sterni. At this time she was noted to have pain and stiffness in the right hip. She was placed in Buck's traction in an attempt to correct some adduction deformity. This was not altogether successful. On 9/16/57 the patient had a subcutaneous adductor tenotomy on the right which was not successful. On 10/11/57 the right hip was injected with Hideltrosol[®] and Dornavac[®] with some relief of the pain. On 12/13/57 the patient had an intrapelvic obturator neurectomy and a right adductor tenotomy with marked benefit. She was fitted with a back brace on 1/6/58 and was dismissed the following day to live with her grandmother.

Comments

This case represents one of ankylosing spondylitis seen in juvenile age groups. It would be well to review the condition of ankylosing spondylitis as it ordinarily occurs. This disease is characterized by multiple arthritis leading to bony ankylosis of

the posterior intervertebral, costovertebral and the sacro-iliac joints by ossification of the spinal ligaments and margins of the intervertebral disks. There is ordinarily rarefaction of the vertebrae. In many cases there is also rheumatoid arthritis of the proximal joints of the limb. Autopsy often reveals obliterative pericarditis and sometimes chronic sclerosing valvular disease of the heart.

Ankylosing spondylitis is insidious in onset and chronic in course. Ninety per cent occur in males, with 80 per cent between 15 and 35 years of age. Symptoms of the disease may arise at any age, but few cases occur in females. There is a strong family incidence of spondylitis. Graham and Uchida reported cases in a family with eight affected individuals. In the third generation, which included nine siblings, ankylosing spondulitis developed in five, two males and three females. The sedimentation rate is usually elevated in the active disease. In its severest form it is one of the most crippling diseases, leading to absolute rigidity of the back, head, ribs and proximal limb joints. The disease is not fatal in itself. Patients survive its most advanced forms for many years and die from other causes.

There is a tendency for spontaneous arrest, or long remissions, following a course lasting from two to 15 years. Limb joints are involved transiently in about one-fourth of all patients and chronically in another fourth. In 25 per cent peripheral arthritis proceeds the onset of spinal symptoms.

Roentgenograms show ossification of the disk margins, spinal ligaments, and evidence of involvement of the sacro-iliac joints. Sacro-iliac involvement is seen in all but a very few instances.

In 1945, Smith-Petersen, Larson and Aufranc described osteotomy of the spine as a means of correcting the flexion deformity which occurs frequently in ankylosing spondylitis. When the flexion deformity of the spine is severe the patient's field of vision is limited to a small area near his feet and walking is extremely difficult. Respiration becomes almost completely diaphragmatic in type, and the gastrointestinal symptoms, due

to pressure of the costal margins of the upper abdomen, occur frequently. Needless to say, the cosmetic improvement afforded by correction of the deformity is of considerable importance.

When the deformity is extreme, the correction should be carried out in two or more stages, because of the contracture of soft tissue and the danger to the aorta and inferior vena cava and the major nerves in the lower extremity. Osteotomy is usually performed at the upper lumbar level. Here the spinal cord canal is large and the osteotomy is below the level of the spinal cord. In this procedure a lumbar lordosis is created to compensate for the thoracic kyphosis. Motion in the spine is not increased.

Conclusion

The typical characteristics of juvenile rheumatoid arthritis, as well as the characteristics of ankylosing spondylitis has been reviewed. A case is presented in which ankylosing spondylitis occurred in the juvenile age group. Although the literature offers suggestions that ankylosing spondylitis of rheumatoid arthritis does not occur in juveniles, this case is presented in support of the belief that ankylosing spondylitis can occur as a manifestation of juvenile rheumatoid arthritis, although the separation of these two entities becomes academic and of little clinical importance. The case presented was corrected by a Smith-Petersen spinal osteotomy with good results. This procedure has been used in the adult cases with gratifying results.

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605 N. W. 10th, Oklahoma City, Oklahoma

ABSTRACTS

Convulsions Following Withdrawal from Meprobamate: Report of Two Cases

DONALD C. GREAVES* and LOUIS JOLYON WEST.**

Convulsions and other withdrawal symptoms are reported in two patients following the discontinuance of meprobamate. During the period of medication both patients showed a developing tolerance, requiring larger and larger doses to produce the desired effect. One patient described a craving for, and sense of habituation to the drug and a fear of addiction. It appears that meprobamate may cause habituation and addiction in certain patients, and that it is in some ways similar to barbiturates in this regard.

When patients have been taking large amounts of meprobamate for long periods, or have developed craving and demonstrated tolerance, the drug should be discontinued gradually over a period of days. Withdrawal symptoms should be treated like barbiturate withdrawal symptoms, and phenothiazine derivatives like promazine and chlopromazine should not be administered during the withdrawal period. Meprobamate should be used with caution and under the close supervision of a physician, particularly in patients with a history of dependence on drugs or alcohol.

*Associate Professor of Psychiatry.

**Professor and Chairman Department of Psychology.

Incorporation of P-32 in the Muscle by Normal and Thyrotoxic Resting Rats

PHILIP C. JOHNSON,* AUDREY F. POSEY,** DANIEL R. PATRICK,** and RANWEL CAPUTTO***.

Amer. Jour. Physiol. 192:279, 1958

The muscles of thyrotoxic rats were compared in their abilities to incorporate radioactive Phosphorus-32 in to organic compounds. When the incorporation rates are compared, it is found that this process is faster in the thyrotoxic animal. The data suggests that this is due to a faster penetration of the phosphorus into the thyrotoxic animal's muscle cell. In contrast, the incorporation of intracellular inorganic phosphorus into intracellular organic phosphorus compounds appears to be slower and requires more oxygen than does the normal. These two mechanisms compensate for each other in the thyrotoxic animal making the total amount of organic phosphorus in its muscle cells equal to that of the normals.

*Chief Radioisotope Service, VA Hospital and Asst. Prof. of Medicine.

**Medical Technicians.

***Head Biochemist Section, OMRF and present Professor of Biochemistry.

The Diagnosis of Hemolysis by a Simplified CR-51 Determination

PHILIP C. JOHNSON,* WILLIAM L. HUGHES** ROBERT M. BIRD,*** and DANIEL R. PATRICK.****

A.M.A. Arch. Int. Med. 100:415, 1957

A clinical laboratory test has been developed which is useful in the diagnosis of the hemolytic state. This test makes use of Chromium-51 labeled homologous erythrocytes to obtain an estimate of erythrocyte life-span. This estimate is obtained by determining the percentage of radioactivity remaining in the blood on the eighth day. In hospitalized patients this technique gives the following ranges of the percent radioactivity remaining: (a) No anemia 94-73; (b) With anemia but without hemolysis 91-66; (c) With acquired hemolytic anemia 94-42; and (d) Hemolytic anemia due to an erythrocyte defect 90-46. This test proves diagnostically useful in 50 per cent of patients with clinically significant hemolysis.

*Chief Radioisotope Service, VA Hospital and Assistant Prof. of Medicine.

**Senior Medical Student.

***Asso. Prof. of Medicine.

****Medical Technician.

The Life History of Cranial Vault Sutures as Revealed in the Roentgenogram.

Editorial.

LACHMAN, ERNEST.*

A. J. of Roentgenology, Radium Therapy and Nuclear Medicine, 70:4, 721-725, April, 1958

In the history of our knowledge of cranial sutures facts and fancy are closely interwoven. The roentgen technique and roentgen anatomy of cranial sutures in various age groups is discussed. Pitfalls in the evaluation of suture closure and the limitations of standard tables on this subject are pointed out.

The roentgenologic investigation of cranial vault sutures offers a means of evaluating a facet of physiologic differentiation throughout life and at ages where most other skeletal indicators have lost their usefulness. In common with other life processes, obliteration of sutures seems to be affected by genetic, metabolic and hormonal factors.

*Chairman and Professor, Department of Anatomy, University of Oklahoma School of Medicine.

Faculty News



John B. Christensen, M.S., pictured left, Research Associate in the Department of Anatomy at the University of Oklahoma School of Medicine has been awarded a James Picker Foundation Fellowship in Radiological Research, administered by the National Academy of Sciences-National Research Council.

The appointment is for a period of 12 months, starting September 1, 1958. He will pursue roentgen-anatomical studies on cranial sutures under the supervision and guidance of Ernest Lachman, M.D., Professor and Chairman of the Department of Anatomy.

His research technique will include microradiography, a new tool in the study of bone structure. Christensen earned his bachelor of arts degree from Brigham Young University in 1954 and his master's degree in medical sciences from the University of Oklahoma School of Medicine in 1955. He is scheduled to receive his Ph.D. in medical sciences from the University of Oklahoma School of Medicine in August 1958.

Mr. Christensen is one of the two recipients of the James Picker Award for this year in the nation.

Arthur A. Hellbaum, M.D., pictured right, Professor and Chairman of the Department of Pharmacology has been granted a year's leave of absence from the School effective June 1, 1958.

The tenure of this leave will be spent as Administrator of Personnel for Research for The American Cancer Society with headquarters in New York City. He will function as a consultant on all phases of their research program.

Doctor Hellbaum plans to continue his research program on the use of thyroid analogs in the treatment of tissue injury.



PRESIDENT'S LETTER



This is another election year in Oklahoma. As citizens we will have some very important decisions to make in July and again in November. Our decisions may very well influence the progress and development we make in organized medicine and as a state.

When a candidate files for public office it takes a great deal of courage and some measure of sincerity, for he is aware that his life will become an open book for all to read.

Too often we fail to study the complete platform of all candidates and allow our small prejudices to shut our minds to potentially strong leaders.

Perhaps the record slimness of the total filing for State and County offices in Oklahoma this year proves a commentary on the manner in which we treat—and mistreat—our public officials and those who seek public office.

If we are to be good and thoughtful citizens, we will listen to the candidates that lack our favor as well as those we may select. A worthwhile contribution may come from the very weakest prospect.

It is the duty of all of us to become thoroughly informed, and to exercise our American right to vote for the candidate of our choice.

A handwritten signature in dark ink, reading "E. C. Mohler, M.D." with a long, sweeping horizontal line extending to the right.

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Special Article

WHAT *Is Civil Defense and* WHO *Is Responsible?*

JERRY RAGSDALE

Director of Public Relations

Oklahoma Civil Defense

This is the second of a series of articles designed to acquaint the medical profession with its role in the state civil defense program.

Medically speaking, Oklahoma's civil defense program is ahead of other states in the Fifth Federal Civil Defense Region. (The Fifth Region includes: Oklahoma, Texas, Louisiana, New Mexico, and Arkansas.)

The Sooner state was the first state in region five to stockpile medical supplies. Four years ago the state civil defense headquarters purchased \$32,000 worth of emergency medical supplies, packaged in 32 kits. Each kit also includes twenty litters.

Today, 26 of the 32 emergency medical units are located in eighteen different towns and cities in the state, with all geographical sections of the state being represented. In each instance, a doctor of medicine has signed an agreement with Oklahoma Civil Defense as to the proper use and need for opening the units.

Citizens, in some circles, frowned on the purchase of \$32,000 worth of medical supplies, but since then they are singing a different tune—especially since the Blackwell tornado victims were treated with a portion of one of the units.

At the present time, emergency medical units are located in: Guymon, Beaver, Fort Supply, Elk City, Lawton, Watonga, Ponca City, Stillwater, Cushing, Oklahoma City (5 units), Healdton, Durant, Chandler, Okemah, Okmulgee, Tulsa (5 units), Nowata and Vinita.

The remaining six units are held in reserve in Oklahoma City and can be moved to a locality on short notice.

Oklahoma Civil Defense Director, Tom Brett readily admits that the present stockpile is inadequate for a man-made type of disaster. His future plans call for additional purchases of medical supplies when the necessary funds become available. All state funds are matched, on a 50-50 basis with federal civil defense funds when such purchases are made.

The Federal Civil Defense Administration has also stockpiled medical supplies in this region, with medical warehouses being located in Texas and Louisiana. If necessary, Oklahoma can draw on these additional units.

Summing up the medical supply problem—A good start, with much yet to be accomplished.

In the phase of civil defense planning, or sometimes termed "disaster planning", much has been accomplished "on paper". At the federal level, disaster plans are well documented and set forth in manuals available to all medical doctors.

The medical phase of civil defense is considered a part of the Health and Special Weapons CD Service, with the Department of Public Health being responsible for completing the necessary plans. Oklahoma CD Director, Tom Brett differs slightly in this responsibility for he believes that practicing physicians should take a more active role in civil defense medical planning.

On the state level, elaborate Health and Special Weapons plans have just been com-

pleted by a special Survival Study Group. The survival planners worked closely with representatives from the Oklahoma State Medical Association, State Department of Health, interested medical doctors and responsible hospital officials.

Now that elaborate medical plans have been completed on state and federal levels—only one major area remains. Until local plans have been completed, the state and federal plans are less than 20 per cent effective—for disasters occur on local levels, not state or federal levels.

During recent months, Brett has been encouraging local medical doctors to take the initiative, if the local civil defense director is inactive, and complete emergency medical plans.

Hospitals are considered as one phase of an overall Health and Special Weapons service—and in this respect hospitals are leading all medical aspects in disaster planning, in Oklahoma.

The majority of hospitals in metropolitan areas and the majority of all accredited hospitals in Oklahoma have, more or less, elaborate disaster plans. These plans include: staff assignments, provisions for emergency expansion, division of the hospital into emergency sections and departments and procurement of additional labor.

If hospitals are searching for a guide for disaster planning they would do well to follow the plans prepared by St. Anthony's in Oklahoma City and St. John's in Tulsa.

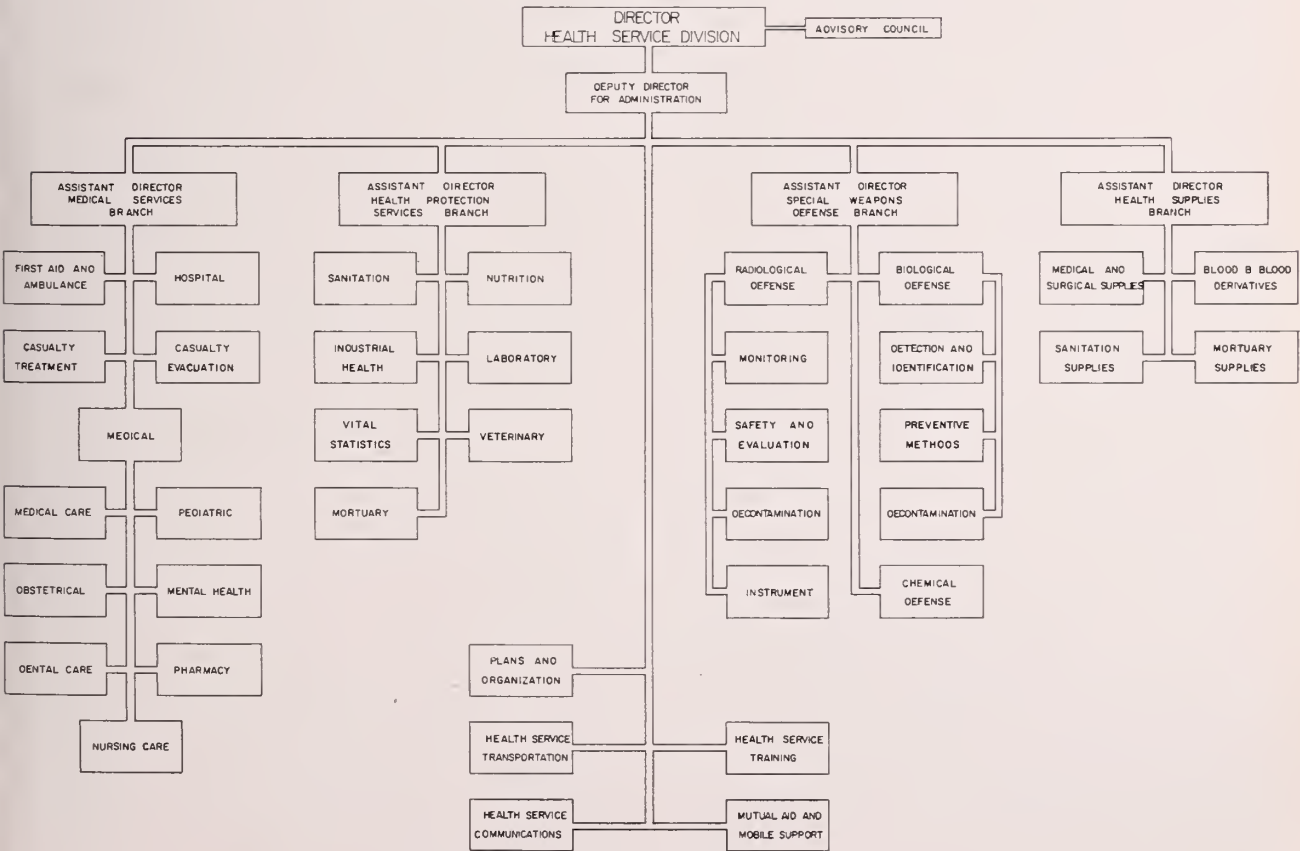
Civil defense planning, in the medical field, has made steady progress, but much is yet to be accomplished if it is to be workable in the event of a large scale disaster.

A suggested Health and Special Weapons organizational chart is pictured on this page. Population and other features should be taken into consideration when adapting this suggested organization to a particular town or city.

Next month, the individual effort by the medical doctor will be described.

HEALTH SERVICE FUNCTIONS

STATE AND LOCAL CIVIL DEFENSE ORGANIZATION



Medical News

A.M.A. Releases Quarterly Legislative Review

The Washington Office of the American Medical Association recently released a quarterly review of legislative activities in the nation's capitol. While Congress, even this late in the session, has taken definite action on very few health bills, a number of hearings have been held and there are clear signs of impending decisions, particularly on the Forand bill and other social security measures. The following summaries indicate some of the prospects for the immediate future.

Legislation on Problems of the Aged

Problems of the aged and how to solve them continue to occupy the attention of some Congressmen. One of the major bills before a House Education and Labor subcommittee is *H.R. 9822* by Rep. Fogarty (D., R.I.); it would provide funds for state conferences on aging, followed by a White House Conference in the spring of 1960. Other measures, including Rep. Zablocki's *H.R. 11057*, would authorize grants for studies and projects at state and local levels as well as create a Bureau of Older Persons in the Department of Health, Education, and Welfare. The subcommittee has heard bills' sponsors and next plans to hear Secretary Folsom and interested private groups.

Pending before the House Ways and Means Committee are a large number of bills amending the Social Security Act, from lowering benefit ages to increasing benefits. Principal measure of concern to the medical profession is Rep. Forand's *H.R. 9467* providing for hospitalization and surgical services for the aged, their dependents and others who are entitled to benefits under social security. The A.M.A. feels that there are not enough statistics in the whole field of the aged and that the Forand bill would encourage overutilization by social security claimants, thus limiting available beds for the acutely ill of all ages in the community.

Hearings probably will be held on all social security proposals some time in May.

Hill-Burton Changes

The Hill-Burton hospital construction act will expire in mid-1959, which means that Congress will be expected to take some action this year in order to allow for orderly planning. Several bills extend the act three to five years. Other measures (*H.R. 6833* and *H.R. 7575*) would permit low interest loans as well as matching grants, an idea that has been pushed by certain religious groups. The administration proposed, then dropped, a plan for new emphasis on special needs rather than general hospital beds.

Senators Payne of Maine and Flanders of Vermont have sponsored a bill (S. 3588) for Hill-Burton grants up to \$25,000 for rural areas with population not exceeding 15,000 for unaffiliated non-profit associations or corporations to build diagnostic and treatment centers. No hearings have been scheduled as yet on any of the proposals. Rep. Coffin (D., Me.) has introduced a similar bill (*H.R. 11826*).

Public Health School Grants

With the exception of appropriations, the health bill closest to passage is *H.R. 11414* (formerly *H.R. 6771*) by Rep. Rhodes (D., Pa.). It provides for earmarking \$1 million in grants to 11 schools of public health for aid in their instruction and other programs. Following hearings by the health subcommittee, the full House Interstate and Foreign Commerce committee on April 2 ordered the bill favorably reported to the House. The administration is opposed on the grounds that action should wait on a conference planned next summer on public health education.

HEW Appropriations

The Department of HEW appropriations bill for the next fiscal year breezed through the House on March 27, in sharp contrast to the days of wrangling a year ago when both House and Senate were embroiled in a

wide scale economy drive. The House actually approved six per cent more health funds than the administration had requested and the prospects were good that the Senate would go even further. Hearings are now under way in the Senate Appropriations subcommittee.

Physician Pay in Federal Service

Two separate bills involving medical officers in the armed services, as well as in the Veterans Administration, are active at this time. The bill *H.R. 11470*, which has passed the House and is pending in the Senate, calls for a general pay raise for the military; it also retains the incentive pay schedule for physicians in uniform which has been in effect since 1947 and was improved only two years ago. Under a bill sponsored by the late Rep. Long (D., La.), the medical department of VA would benefit by increased pay scales. This measure (*H.R. 6719*) is pending in the House Rules Committee.

Union Health and Welfare Plans

Union and management pension, health and welfare plans covering 100 or more employees would be required to register and make periodic accounting of funds, under *S. 2888*. The Senate Labor and Public Welfare Committee first started hearings on mismanagement of plans three years ago. Just before the Easter recess, after a final brief hearing, the committee approved the bill. It would affect some 4,000 plans covering at least 2 million employees. Bill sponsors are Senators Douglas, Kennedy, and Ives.

Federal Aid to Medical Schools

Long-standing bills for one-time construction grants for new and existing medical schools are before the House Interstate Committee and the Senate Labor and Public Welfare Committee. The Senate committee has been deeply involved in hearings on general education and has not gotten around to medical schools. The health subcommittee of House Interstate may soon take up several versions pending there: *H.R. 6874* by Chairman Harris and *H.R. 7841* by Rep. Fogarty. The Senate bills are *S. 1922* by Senator Hill and other Democrats and *S.*

1917 by Republican Senators Smith of New Jersey and Purtell.

Public Works Grants

A controversial bill pushed by the Democratic leadership is *S. 3497* which is promoted as an anti-recession measure. After several days of hearings in which there was no unanimity either on the part of witnesses or Senate Banking and Currency Committee members, the bill was reported to the Senate. Its \$2 billion loan fund was cut to \$1 billion and the interest rate raised from three per cent to three and one-half per cent. Money could be loaned for 50 years to states and communities for all sorts of programs, including public hospitals, health centers, and possibly state medical schools. A similar bill, *H.R. 11272*, is pending in the House.

Chemical Additives

The question of pretesting of chemical additives, a perennial in Congress, may be nearing an answer. The House Interstate health subcommittee, which has held extensive hearings on a number of bills, resumes sessions after the Easter recess with testimony from Food and Drug Administration officials. Among the bills are *H.R. 6747* and *H.R. 8390*, both by Chairman Harris. One of the knotty problems is that of legal review for appeal cases.

CAA Medical Department

A long-standing goal of certain federal officials is the creation of the Office of Civil Aviation Medicine in the Civil Aeronautics Administration and the appointment of a civil air surgeon to head it. One version is *S. 1045* on which hearings were held last year by Senate Interstate and Foreign Commerce Committee, and an identical bill is *H.R. 4275* in the House Interstate. The A.M.A. actively supports this proposal, maintaining that only a strong medical department in the Civil Aeronautics Administration can properly administer examinations of fliers and decide other aviation issues involving medicine. A.M.A. wants questions involving medical determinations shifted from Civil Aeronautics Board, which has no qualified medical department, to CAA.

Extension of Unemployment Compensation

Bills before the House Ways and Means Committee, including *H.R. 10570*, would broaden the period for payment of unemployment compensation benefits under the federal-state program and extend the program to cover all employers. Three days of hearings were held on these measures—described as emergency plans to relieve the unemployed—and action by the committee is expected shortly.

Jenkins-Keogh Tax Deferment

Of direct interest to the profession are the Jenkins-Keogh proposals for deferment of taxes on money paid into retirement plans by the self-employed. *H.R. 9* and *H.R. 10* are pending before the House Ways and Means Committee. Another version is part of an omnibus small business tax relief measure in the Senate Finance Committee; it would allow tax deferment on up to \$1,000 a year (the Jenkins-Keogh proposals provide for up to \$5,000); the companion bill before the House Ways and Means Committee is *H.R. 10499*. The Senate measure is *S. 3194*. House hearings on general tax bills early in the session touched on Jenkins-Keogh, but the committee has not yet reported out a bill.

Aid to Higher Education

Under the impetus of the race for outer space, both House and Senate Committees have held extensive hearings into proposals for scholarships at the college level, including pre-medical training. An amount of \$1 billion over four years would provide 10,000 scholarships annually for bright students, with preference in math and science. This is the administration plan, embodied in *S. 3163* by Senator Smith of New Jersey. The Democrats propose to spend \$3 billion over six years in *S. 3187* by Senator Hill and *H.R. 10381* by Rep. Elliott. Bills are still in committee. In most of the bills, pre-medical and medical students along with others would be eligible for their first four or six years of college, depending on the particular bill.

Miscellaneous

Other health bills still in committee and on which no hearings have been held are *H.R. 306* for grants and scholarships for

nursing; *H.R. 3764* which is Rep. Dingell's compulsory health insurance plan first authored by his father; *H.R. 6506* and *6507*, identical administration-backed proposals for small insurance companies to enter into pooling arrangements for experimenting in wider health insurance coverage; and *H.R. 6141* which authorizes medical care for federal civilian employees and their dependents living overseas and which is pending in the House.

Nursing Homes Ask for Federal Guarantee of Mortgages

Owners and operators of nursing homes want the federal government to guarantee their mortgages so they can obtain needed new buildings and equipment when local lending sources either will not or cannot make the loans on reasonable terms without U. S. backing. Their arguments for U. S. assistance were presented to the Senate Banking and Currency's subcommittee on housing by George T. Mustin, past president of the American Nursing Home Association. It represents about 5,000 institutions, almost all of them proprietary. Mr. Mustin made these points:

1. Because nursing home structures generally are regarded as one-purpose buildings, the usual local lending institutions in most instances will not or cannot grant credit on reasonable terms.

2. The association prefers loans of up to only 75 per cent of the value of the building to discourage "inexperienced and irresponsible persons" from entering the profession. This is the lowest ratio provided in any program under jurisdiction of the Federal Housing Administration, which would administer these loans.

3. The proprietary nursing home provides a vital service to the community and is part of the economy on which America's growth and prosperity is based.

4. More than 91 per cent of nursing homes and 71 per cent of beds for the aged and chronically ill are in privately-owned nursing homes, and "there is no expectation whatever" that public or non-profit in-

stitutions are prepared to take over this responsibility.

5. The proprietary nursing homes with realistic standards, and with proper arrangements for nursing and physicians' services, take care of "hundreds of thousands of elderly patients who otherwise would be forced to enter general hospital and pay the relatively high prices that hospitals are forced to charge."

Testifying before the same subcommittee for the Department of Health, Education and Welfare, Acting Secretary Elliot Richardson recommended amendments to the housing act to help in providing rental housing for the aged.

Fifth Annual St. Joseph's Clinics to Be Held in Denver

The Fifth Annual St. Joseph's Clinics are to be held in Denver, Colorado, July 31, August 1 and August 2. The three day clinic will open at 9:00 a.m. on July 31 and close at 12:00 a.m. on August 2.

Two significant changes in the clinics have been announced. This year, two outside speakers have been secured. Laurance W. Kinsell, M.D., Director of the Institute for Metabolic Research at Highland Alameda County Hospital, Oakland, California, will speak on "Consideration of Certain Aspects of Diabetic Vascular Disease." Edgar J. Poth, M.D., Professor of Surgery at the University of Texas Medical Branch, Galveston, Texas, will speak on "The Anatomy and Physiology of the Stomach and Duodenum of Particular Interest to the Surgeon."

Though previously the clinics were open meetings, this year they will be closed. However, physicians who are particularly interested in attending may secure an invitation by writing to Mrs. Eugenia Hogue, St. Joseph's Hospital, 18th at Humboldt, Denver 18, Colorado.

Indigent Mental Health Program Outlined

In a recent letter to the Executive Office, George H. Guthrey, M.D., Chairman of the Medical Advisory Committee for the Oklahoma Association for Mental Health, outlined procedures through which services from local mental health associations will be made available to medically indigent mentally ill in counties where the Oklahoma Association has a recognized office.

University Hospital Patients

Patients being treated at University Hospital will be asked to contact their local physician. Prescriptions for these patients should be filled locally. The local physician should write University Hospital for medical information.

Upon receipt of this request University Hospital will specify:

1. The type and amount of drug prescribed.
2. The patient will return to University Hospital for an interview. (The interview will be so scheduled as to coincide with the need for additional prescription for medication.)
3. The patient will see his local physician for treatment.

This plan may be applied to out-patient clinics of general hospitals where psychiatric services are available as well as child guidance clinics in Tulsa and Oklahoma City.

Department of Mental Health Patients

The program will encompass patients having received treatment from the State Department of Mental Health as follows:

Upon leaving the hospital a patient will be furnished a card with his name and file number in addition to a statement of authority for the release of medical information desired by the patient's local physician.

To obtain a summary of the patient's medical history the physician should sign the card and enclose it in the addressed and stamped envelope provided by the hospital from which the patient is on leave status.

The local physician shall determine whether the patient can afford to purchase medications prescribed by the physician, taking into consideration the recommendations of the Social Service Staff of the facility concerned. Should the physician feel that neither the patient nor his family can afford the cost of these drugs, the physician should

contact the President of the Local Mental Health Association. The determination of whether the local mental health association can pay for the prescription must be decided by the President and the Board of Directors. County Association Presidents are listed below:

County	Name	Address	Town
Adair	Mrs. Helen Willaby		Stilwell
Alfalfa	Dr. George Hart	305 S. Grand,	Cherokee
Beaver	Dr. E. A. McGrew		Beaver
Beckham	Rev. Fred Jordan	Christian Church,	Sayre
Blaine	Miss Genevieve Seger		Geary
Caddo	Mrs. John Montgomery	928 S. Sunset Drive,	Anadarko
Canadian	Dr. James P. Jobe	203 S. Macomb,	El Reno
Cherokee	Dr. Basel Van Schuyver	Northeastern State College,	Tahlequah
Cleveland	Betty Hoffman	818 W. Boyd,	Norman
Comanche	Bernell Gilbert	14th and Gore,	Lawton
Creek	Mrs. Darrel Stiles	N. W. of City,	Bristow
Custer	Carl Cunningham	Box 109,	Weatherford
Dewey	Mrs. L. C. Elliott	Box 158,	Seiling
Ellis	Dr. R. H. Burgtorf		Shattuck
Garfield	Mrs. Dick Mathes	1905 E. Ash,	Enid
Grady	Rev. Orval Holt	1003 Missouri,	Chickasha
Grant	Mrs. J. C. Pond		Medford
Greer	Mrs. C. R. Lampert		Brinkman
Harmon	Mr. Emory Crow		Gould
Harper	Bill Rowley		Buffalo
Haskell	Rev. Walter Draughon	602 N. E. 5th,	Stigler
Hughes	Rev. Henry E. Moore	Box 588,	Holdenville
Jackson	Leonard Merritt	320 N. Hudson,	Altus
Kingfisher	Henry Hukills	908 S. 7th,	Kingfisher
Kiowa	Rev. Daris Parker	First Methodist Church,	Hobart
Lincoln	Rev. David Reese	Christian Church,	Chandler
Logan	Dick Fogarty	723 N. Wentz,	Guthrie
McIntosh	Max Silverman		Eufaula
Major	Mrs. Edmund Pendleton	219 N. 7th,	Fairview
Mayes	L. E. Craig	1412 Willow Rd.,	Pryor
Muskogee	Al Donnell	514 S. 14th,	Muskogee
Noble	George Hart	Perry Memorial Hospital,	Perry
Nowata	Mrs. William Shipley	County Supt. of Schools,	Nowata
Oklahoma	Mrs. Paul Dudley	543 N. W. 32nd,	Oklahoma City
Okmulgee	Mr. J. Boyd Collard	512 N. Okmulgee,	Okmulgee
Osage	Mrs. Louis DeNoya	813 Rogers,	Pawhuska
Ottawa	J. R. Hall, Jr.	2230½ N. Main,	Miami
Pawnee	James H. Moses	611 Forest,	Pawnee
Payne	Mrs. Sam Myers	1320 W. 9th,	Stillwater
Pittsburgh	Dr. C. K. Holland	528 S. 13th,	McAlester
Pontotoc	Mrs. O. O. Wilson	1530 Bdwy. Blvd.,	Ada
Roger Mills	Mrs. Lavon Pankey	Box 312,	Cheyenne
Seminole	Keith Cooper	Box 1402,	Seminole
Stephens	Mrs. E. E. Brown	Box 311,	Duncan
Texas	Theo Yarbrough	County Supt. of Schools,	Guymon
Tillman	Mrs. Tom Moran	Box 698,	Tipton
Tulsa	Mrs. Paul Burns	928 S. Erie,	Tulsa
Washington	A. J. Head	Box 1104,	Bartlesville
Washita	Mrs. Raymond Sears	203 W. 6th,	Cordell
Woods	Mrs. Carl Mallon	815 N. Sunset Dr.,	Alva
Woodward	Rev. Norman Stacey	Christian Church,	Woodward

Coming Meetings

HILLCREST MEDICAL CENTER 1653 East 12th St., Tulsa, Okla.

June 10—Physiological Basis of Liver Function Tests,
E. G. Larsen, Lecturer.

June 24—Alimentary Reserve: the malabsorption
syndrome, J. W. H. Smith, Lecturer.

UNIVERSITY OF COLORADO MEDICAL CENTER 1958 Postgraduate Courses Denver, Colorado

CLINICAL HEMATOLOGY*

June 16-21, 1958

Matthew Block, Ph.D., M.D., Associate Professor of Medicine and Kurt N. von Kaulla, M.D. will direct a course in Clinical Hematology for Internists and Pathologists at the University of Colorado Medical Center, June 16-21, 1958. Registration is limited to 12 students and the fee is \$100.

DERMATOLOGY FOR GENERAL PRACTITIONERS* July 10, 11, 12, 1958

A postgraduate refresher course in Dermatology for General Practitioners will be held at the Colorado General Hospital and Fitzsimons Army Hospital, July 10, 11, 12, 1958.

THE PREVENTION AND MANAGEMENT OF ATHLETIC INJURIES*

August 25, 26, 27, 1958—Denver, Colorado

Don H. O'Donoghue, M.D., Orthopedic Consultant, University of Oklahoma; Thomas B. Quigley, M.D., Assistant Clinical Professor of Surgery, Harvard Medical School; Joseph P. Dolan, Ph.D., Research Professor of Physical Education, North East Missouri State Teachers College; Kenneth Rawlinson, Chief Trainer, University of Oklahoma and Jack Rockwell, Chief Trainer, University of Colorado will be speakers for this program.

*For detailed program and further information, write to: The Office of Postgraduate Medical Education, The University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

ST. JOSEPH'S CLINICS July 31, August 1 and 2 Denver, Colorado

The Fifth Annual St. Joseph's Clinic will be held July 31, August 1 and 2 in Denver. The meetings will be closed this year but physicians who are interested in attending may secure invitations by writing to Mrs. Eugenia Hogue, St. Joseph's Hospital, 18th at Humboldt, Denver 18, Colorado.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Applications for certification (American Board of Obstetrics and Gynecology), new and reopened, Part I, and requests for re-examination Part II, are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of application is September 1, 1958. No applications can be accepted after that date.

Candidates for admission to the Examinations are required to submit with their application, an unbound 8½ x 11 typewritten list of all patients admitted to the hospitals where they practice, for the year preceding their application, or the year prior to their request for reopening of their application.

Current Bulletins outlining present requirements may be obtained by writing to the Secretary's office: Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

AMERICAN GOITER ASSOCIATION San Francisco, California June 17, 18, 19, 1958

The 1958 meeting of the American Goiter Association will be held in the St. Francis Hotel, San Francisco, California, June 17, 18 and 19, 1958. The program for the three day meeting will consist of papers and discussions dealing with the physiology and diseases of the thyroid gland.

Hotel reservations must be secured by writing to Goiter Housing Bureau, Room 300, 61 Grove Street, San Francisco, California and be accompanied by a deposit of \$10.00 per room.

Organization News

County Officers Hear Aubrey Gates Discuss Forand Bill

County medical society officers and members of the Council met at the O.S.M.A. Executive Office on April 16 to hear A.M.A. representative Aubrey Gates discuss organized medicine's role in combatting the Forand Bill and other similar legislative proposals.

Mr. Gates, who is on loan to a special task force committee from the Council on Rural Health, first outlined the history of the Forand Bill and emphasized its provisions and implications. He then briefed those in attendance regarding the A.M.A.'s plans to combat the specific legislation in question and future legislation of a similar nature by developing a sound, positive approach to the increasingly important problem of caring for the aged.

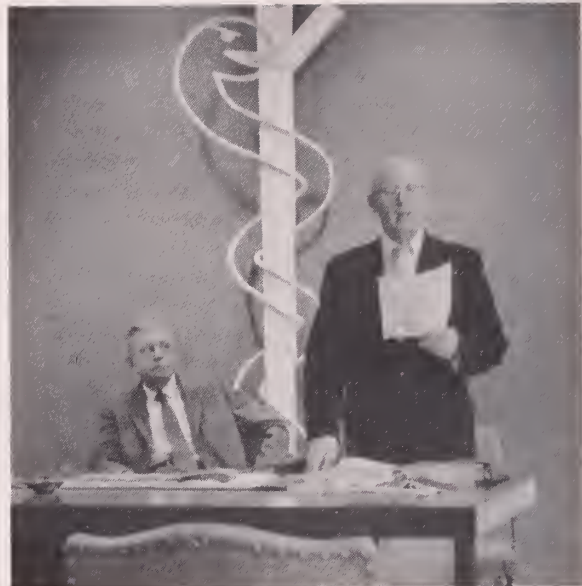
Product of the AF of L-CIO

According to Mr. Gates, the Forand Bill that is now up for hearing in the House Ways and Means Committee, is a product of George Meany's AF of L-CIO labor group and was unsuccessfully promoted for several years until it was sold to Representative Aime J. Forand (D., Rhode Island) for introduction into Congress. The bill is an amendment to the present Social Security Act which will provide government sponsored hospital and surgical care for approximately thirteen million claimants, principally those over sixty-five years of age.

Basic among the many objections to this legislation is the feeling of the A.M.A. and other interested groups that the bill proposes a political solution to a health problem; it is a health care bill developed by non-medical people.

AMA Plans Revealed

Mr. Gates related to the group the program that is being developed at the A.M.A. level regarding this bill specifically and other similar proposals generally. A task force was organized at the direction of the



Aubrey Gates, A.M.A. representative, is shown speaking to the O.S.M.A. County Officers and Council members.

A.M.A. House of Delegates and instructed to make a comprehensive study of the health care of the aged and formulate a detailed, positive program.

As a result of this planning, the A.M.A. has launched a concerted campaign directed toward solving the problem of the aging population on a realistic basis rather than through a poorly-designed political endeavor such as the Forand Bill. Essentially, the program encompasses both an external and an internal approach.

From an external standpoint, the A.M.A. has promoted the establishment of the Joint Council for the Health Care of the Aged, an organization representative of the American Dental Association, the American Hospital Association, the A.M.A. and the American Nursing Home Association. These organizations, as principal sources of health care, recognize that the responsibility of solving the health problems of the aging, for the present and future, demands joint planning by all four associations. The basic objectives of the Joint Council are:

1. To identify and analyze the health need of the aging.

2. To appraise available health resources for the aging.

3. To develop programs to foster the best possible health care for the aging regardless of their economic status.

The Council is already functioning and its member organizations are hopeful that the voluntary study by their authoritative agencies will yield an intelligent and workable solution to the problem at hand.

From an internal position, the A.M.A. has prepared testimony to be presented before the House Ways and Means Committee and is endeavoring to coordinate the establishment of a national legislative network between Congress and the state and county medical societies which comprise the A.M.A.

On the Local Level

Mr. Gates pointed out that the A.M.A. and its Washington Office does not cast a single vote for any of the country's lawmakers and that a great share of the responsibility for combatting ill-advised health measures must be passed on to the members of state and county medical societies. He encouraged Oklahoma physicians to completely inform themselves about the Forand Bill and other legislation of this type and to quietly inform the citizens of their respective communities. "At the present time," he said, "the A.M.A. doesn't want to conduct a public campaign as was done in defeating the Wagner-Murray-Dingle Bill. Our advisors have said that we should not advertise this particular bill for Mr. Meany, but should conduct a quiet campaign to keep it from being passed."

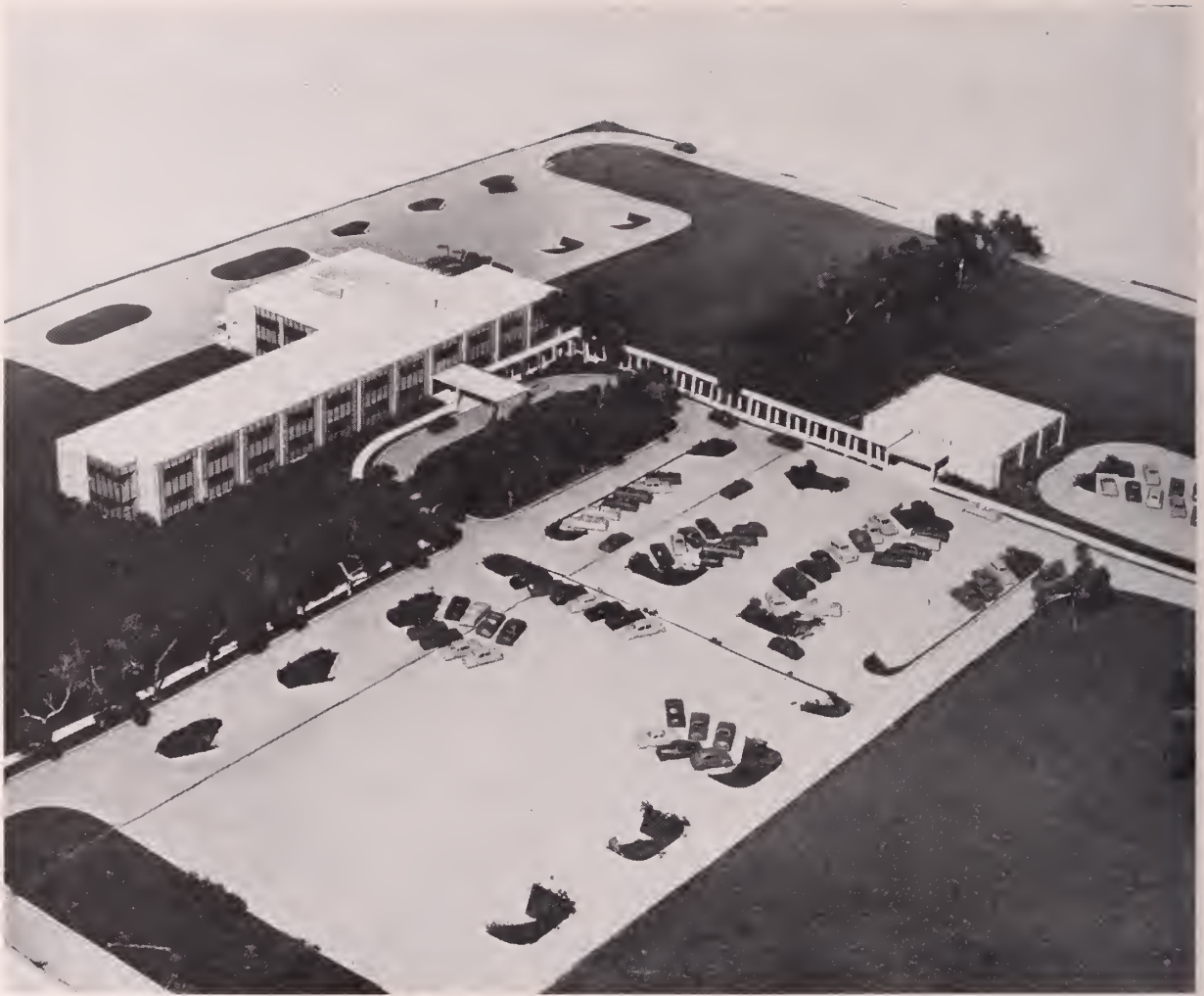
He asked for the O.S.M.A.'s cooperation in establishing a "bank" of information which may be used to advantage in the event that the Forand Bill should be favorably reported out of committee. Questionnaires pertaining to the names of physicians and other professional and business people who are particularly influential with our Congressional representatives were distributed to the group. As a further request, he asked the president to appoint a committee whose function would be to collect and "bank" this information for possible future use.



Caddo County Honors Roy L. Cochran, M.D.

Roy L. Cochran, M.D., Caddo physician, pictured above, was honored May 9, when more than a thousand friends celebrated "Doctor Roy Cochran Appreciation Day." During the program which was emceed by Cowboy Pink Williams, a long-time acquaintance, Doctor Cochran was presented with an album of newspaper clippings and other mementoes detailing his many achievements. Tributes to Doctor Cochran were given by Alfred T. Baker, M.D., Durant, and district judge, Sam Sullivan.

Doctor Baker, president-elect of the Oklahoma State Medical Association, represented the Atoka-Bryan-Coal Medical Society on the program. On behalf of the group, he read a resolution of commendation and expression of pride in the life-long service Doctor Cochran has given his community and profession. "He has given unstintingly of his skill and his knowledge and understanding to those who needed him, without regard to his own health," the resolution stated. "By his conduct and example," it continued, "he has upheld and added luster to the highest principles of the medical profession. Therefore, be it resolved that the Atoka-Bryan-Coal district medical society does hereby highly commend Doctor Roy L. Cochran to the people of Bryan county and the state of Oklahoma, and expresses the society's pride in the service he has rendered the whole medical profession."



Grady County Hospital and Health Center Under Construction In Chickasha

Ground breaking ceremonies were held in Chickasha April 13 for the new Grady County Hospital and Health Center. Total project cost will be \$1,440,000.00, the funds for which were provided by a county bond issue and the Hill-Burton Federal Aid.

On the ground floor of the hospital will be an administrative section, service areas, adjunct facilities and one thirty-bed medical nursing unit. The second floor will have a thirty-bed medical and surgical nursing unit, surgical suite and obstetrical suite. The basement will house storage facilities, mechanical equipment and laundry space. Air conditioning will have individual room controls. In each patient's room, provisions

will be made for television, telephone, audio nurse's call system, toilet room and oxygen.

The site of the new buildings is located on the western edge of Chickasha with ready access from highways and the downtown business district. Buildings are located on a seven acre tract of land. Adequate parking facilities for seventy-five cars is provided for public use, as well as staff parking area for both the Hospital and the Health Center. The Health Center building is connected to the hospital by a covered walk.

Leslie G. Brauer and Maurice A. Wood, architects, Chickasha, designed the two structures. Completion of the construction is expected in April, 1959.

HIGHLIGHTS OF THE 52nd ANNUAL MEETING

Mohler Heads Association; Baker Next in Line



E. C. Mohler, M.D., Ponca City, and A. T. Baker, M.D., Durant, exchange congratulations during the O.S.M.A.'s 52nd Annual Meeting. Doctor Mohler took over the reins of the Association, succeeding John F. Burton, M.D., and Doctor Baker was elected to the office of President-Elect by the House of Delegates. He will succeed Doctor Mohler in April of 1959, at the next annual meeting.

E. C. Mohler, M.D., Ponca City, assumed the office of President of the Oklahoma State Medical Association on Tuesday evening, May 6, at the President's Inaugural Dinner-Dance which was held at the Skirvin Tower Hotel.

Doctor Mohler entered practice in Ponca City in 1940 and served in the military service from 1941 to 1946. Representing District 2, he has served on the Council of the Oklahoma State Medical Association since 1951 and was elected president-elect in May 1957 to succeed John F. Burton, M.D.

Alfred T. Baker, M.D., Durant, was elect-

ed President-Elect to succeed Doctor Mohler. Doctor Baker will take office in April 1959. A past president of the Bryan County Medical Society, Doctor Baker has been active in the O.S.M.A. for many years. He served as a councilman from the 11th district for nine years. He represented the Association on an industrial tour to the east two years ago and also at the Annual Public Relations Conference held in Chicago last fall.

A native of Indiana, Doctor Baker came to Durant in 1934 and has practiced medicine there since that time, except for 65 months spent in the army medical corps during World War II.



The exhibit of "*The Journal of the Oklahoma State Medical Association*," pictured above, graphically explained the organization, purpose, history and progress of "*The Journal*."



Over twenty physicians displayed the products of their leisure time at the annual Physicians Hobby Show, a project of the Woman's Auxiliary. The professional quality of the art and handicrafts on exhibition provided an extremely interesting diversion from the scientific aspects of the state meeting.



Roundtable Luncheons were scheduled for both Monday and Tuesday in the Mirror Room of the Municipal Auditorium. The luncheons were followed by informal question and answer period enabling physicians to discuss pertinent medical subjects with the visiting guest speakers.

712 ATTEND

An unusually good attendance was recorded for the meeting with 712 physicians registered during the two and one-half day event. This figure represents nearly fifty per cent of the entire active membership.

COUNCIL MEETS FOR PRE-CONVENTION SESSION

The Annual pre-convention meeting of the Council of the O.S.M.A. convened at 1:30 p.m. in the Crystal Room of the Skirvin Hotel, May 4. A dinner was arranged for the group at 6:00 p.m., followed by the closing session which lasted into the evening. Recommendations on Association policy were incorporated into the Council Report which was subsequently presented to the House of Delegates.

HOUSE OF DELEGATES CONVENES ON SUNDAY MORNING

As an innovation this year, the House of Delegates began their meeting at 10:30 a.m. rather than the usual afternoon starting time. A buffet luncheon was served in the Hall of Mirrors meeting room, providing a convenient means of expediting the conduct of the meeting. Lively discussion carried on throughout the afternoon and resumed again for an evening session following a break for dinner.

The proceedings of the opening session are published in full in this issue; the closing session will appear in the July issue. Some of the high points of both sessions are outlined below:

T. J. Lowrey, M.D., Yukon, was presented with a \$100.00 check as winner of scientific writing competition sponsored by the Editorial Board of the *Journal*. His paper, "Report of a Controlled Clinical Study of Acyl-anid" was judged best of a group of papers submitted by House Staff Physicians.

Three highschoolers, Ann Gould, Terry Enterline and Don LaBalle, were presented cash prizes as first, second and third place winners of state competition in the AAPS Essay Contest: subject, "The Advantages of Private Medical Care."



The Council, pictured above, convened at 1:30 p.m., May 3, in the Crystal Room of the Skirvin Hotel.

A. T. Baker, M.D., Durant, was named President-Elect of the O.S.M.A. to succeed incoming president E. C. Mohler, M.D., this time next year. Francis R. First, M.D., Checotah was elected to the office of Vice-President succeeding A. L. Johnson, M.D., El Reno. Wilkie D. Hoover, M.D., Tulsa, was re-elected as Delegate to the A.M.A. and Joe L. Duer, M.D., Woodward, was named as his alternate, to succeed E. H. Shuller, M.D., McAlester, on January 1, 1959. Clinton Gallaher, M.D., Shawnee, and J. Hoyle Carlock, M.D., Ardmore, were re-elected to serve as Speaker and Vice-Speaker of the House of Delegates.

After lengthy debate, the House voted to continue the present relationship with the Department of Public Welfare regarding its medical care program for recipients. The report of the Medicare Committee, recommending continuing participation, was also approved.

The Insurance Committee report to the

House revealed the development of a new Standard insurance reporting form and a companion physician statement form. In addition, the Committee reported that plans were underway to offer the membership a greatly improved health and accident insurance program.

A resolution was passed directing the Executive Office to distribute information, regarding important issues, to each county and district medical society at least thirty days prior to the annual meeting.

A resolution was passed proposing the appointment of a special committee to provide close liaison with the Blue Shield Plan.

A revised Constitution and By-Laws was approved by the House, effective immediately. Basically, the revised version amounted to a streamlining process. Significant among the relatively few actual changes, however, was the provisions giving the Council original jurisdiction in "All mat-

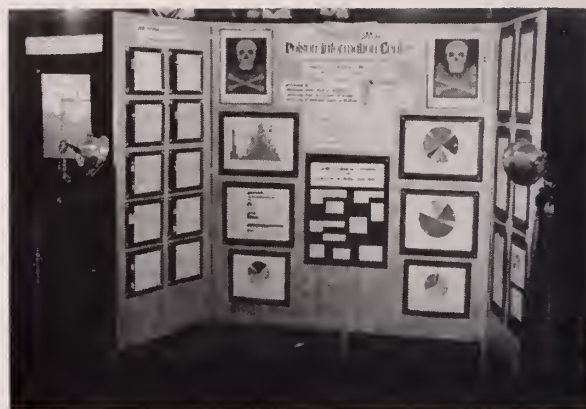
ters or controversies between a component society and one or more of its members where a showing is made that an independent and objective forum cannot be obtained or has not been obtained before or in the component society, which showing shall be initiated at the request of a member of the Council and approved by a majority vote of the Councilors present at the meeting at which such request is presented."

SCIENTIFIC PROGRAM OPENS ON MONDAY

The scientific program got under way Monday morning with the general session and a scientific motion picture theater starting simultaneously. An average of one hundred physicians were present in the scientific meeting room throughout the entire series of forty minute lectures. Nationally known physicians who appeared as guest speakers were J. Arnold Bargaen, M.D., Rochester, Minnesota; John E. Hobbs, M.D., St. Louis, Missouri; Charles H. Brown, M.D., Cleveland, Ohio; John H. Githens, M.D., Denver, Colorado; Kenneth C. Johnston, M.D., Chicago, Illinois; Robert D. Moreton, M.D., Ft. Worth, Texas; Charles W. Mayo, M.D., Rochester, Minnesota; Alvin J. Ingram, M.D., Memphis, Tennessee; Edgar J. Poth, M.D., Galveston, Texas; Louis A. Soloff, M.D., Philadelphia, Pennsylvania, and Edwin L. Prien, M.D., Brookline, Massachusetts.

In addition, John R. Danstrom, M.D., Oklahoma City; R. M. Shepard, M.D., Tulsa, and B. J. Rutledge, M.D., Oklahoma City, opened each day's activities with a twenty minute paper on Monday, Tuesday and Wednesday, respectively.

Roundtable Luncheons were held on Monday and Tuesday in the Hall of Mirrors of the Municipal Auditorium. Members were given the opportunity to question guest speakers who appeared on the preceding morning program.



The exhibit on Accidental Poisoning, pictured above, was selected for an award in the Scientific and Organizational Exhibits Section at the annual meeting. Prepared by H. A. Shoemaker, Ph.D., Director of the Oklahoma Poison Information Center, the exhibit graphically portrays the valuable contribution the Center has made to Oklahoma physicians in the handling of poison cases.

EXHIBITS COMMENDED

A secret committee of judges inspected the thirty-five Scientific and Organizational Exhibits, picking three to be presented Awards of Achievement. In the Scientific field, "Rehabilitation of the Severely Burned Patient," prepared by the Veterans Administration Hospital of Oklahoma City, received an award as did the exhibit "Stapes Mobilization Operation" prepared by the Department of Otolaryngology, Wesley Hospital.

In the Organizational field, an award was presented to the Oklahoma Poison Information Center for its exhibit entitled "Accidental Poisoning."

BLUE SHIELD ENTERTAINS

All physicians and their wives were invited to attend a complimentary buffet dinner on Monday, May 5, as guests of the Oklahoma Blue Shield Plan. Served at Oklahoma City's beautiful Lake View Country Club, the enjoyable affair was attended by 530. Following the dinner, approximately two hundred physicians and their wives were first-nighters at the Oklahoma City showing of the Broadway musical "Damn Yankees."

THIRTEEN ATTEND PAST PRESIDENT'S BREAKFAST

The Annual Past President's Breakfast sponsored by the Blue Shield Plan, was attended by thirteen former presidents of the O.S.M.A. Held at 8:00 a.m. in the Skirvin Hotel, the event provided the physicians with an excellent opportunity to review the triumphs and pitfalls of their respective administrations.

E. C. MOHLER, M.D., INSTALLED AT DINNER-DANCE

E. C. Mohler, M.D., Ponca City, was installed as President of the Oklahoma State Medical Association at ceremonies highlighting Tuesday evening's President's Inaugural Dinner-Dance, held in the Persian Room of the Skirvin Tower. Out-going President John F. Burton, M.D., presented Doctor Mohler with an engraved gavel symbolic of the Association's highest honor. In return, Doctor Mohler presented Doctor Burton with an engraved plaque in recognition and appreciation of his service to the organization during the past year.

Following the Inaugural Dinner, nearly five hundred physicians and wives enjoyed an evening of dancing to the music of the Charlie Spivak orchestra.

SPORTS EVENTS HELD AT TWIN HILLS

Over fifty golfers competed in the Association's Annual Golf Tournament which was held on Wednesday, May 7, at Twin Hills Golf and Country Club.

Four trophies were awarded to the contestants in the following categories: Low Score, Handicaps, Low Putts, and High Score.

Everette Cooke, M.D., and John Carey, M.D., both of Oklahoma City, initially tied for low score, but after a playoff, the trophy was awarded to Doctor Carey. E. N. Robertson, Jr., M.D., Oklahoma City, was the winner of the Handicaps Trophy. E. H. Kalmon, M.D., Oklahoma City, and Van

Howard, M.D., Oklahoma City, won the Low Putt and High Score Trophies.

High points of the tourney play were the hole-in-one scored by Doctor Kalmon and the eagle shot by John D. Ingle, M.D., Oklahoma City.

In a separate activity at the Twin Hills, John A. Schilling, M.D., Oklahoma City, defeated R. R. Hannas, M.D., Sentinel, for the Tennis Championship.

Following the sports contests, a social hour and banquet were held for all participants.

HOBBY SHOW

The Annual Physicians Hobby Show, sponsored by the Woman's Auxiliary, provided physicians with an eye-catching display of a great variety of their colleagues' handicrafts. Paintings of all types, woodworking, collections and metalcraft are but a few of the hobbies that were shown. This event is presented annually in an effort to not only display hobbies currently pursued by members of the profession, but also stimulate greater creative utilization of spare time by all physicians.

Sol Wilner, M.D., Tulsa Heads Radiology Group

At a meeting last month in Oklahoma City, Sol Wilner, M.D., Tulsa radiologist, was elected president of the 45-member Oklahoma State Radiological Society. Doctor Wilner will succeed Lucian M. Pascucci, M.D. from Tulsa.

The group will seek codes for safe installation and operation of medical and dental X-ray equipment as well consider committee recommendations to push for state laws prohibiting X-ray fluoroscopes for fitting shoes.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association June, 1933.

HONORS AND SCARS*

T. H. McCarley, A.B., M.D., F.A.C.P.
McAlester

"To every man, whether he be of low or high estate, there are outstanding occasions which are landmarks along the way of his life. These are unforgettable incidents to which other events of less importance are related and from which they are dated. Childhood, youth and the years of maturity are studded with these markers. One may be the attainment of a long sought goal with all the happiness that accompanies the accomplishment of a worthy purpose; another, on the contrary, may be a profound sorrow with its all but crushing effects; still another may be the reception of an unsought but distinctive honor with all its attending glamour and halo. Such an honor came to me in being elected President of the Oklahoma State Medical Association. For according me, an humble practitioner of the healing art, this tribute, I feel and express my sincere gratitude and appreciation.

"But I would not be content, buoyed by the depths of this honor, to rest on my oars and drift along in blissful enjoyment of our felicitations. I think that 'The King of the Roycrofters' never made a more striking statement than this: 'God will not look you over for medals, diplomas and degrees, but for scars.' With the present day, rapid fire changes in social, economic and governmental conditions, which necessarily affect medical practice, there are conflicts in which we, as men of organized medicine, must engage, that will leave their scars.

"To the master minds of memorable, medical men, belongs the credit for discerning through persistent, painstaking effort—sometimes heroic sacrifice—the cause, prevention and cure of many physical and psychic ills. We, as clinicians, make daily use of the knowledge thus acquired. While some diseases, notably cancer, cardio-vascular diseases and pneumonia, still rank almost as high as ever in mortality percentage, we are encouraged to believe that these, too, will fall victims of scientific research. This faith is warranted by the success achieved against others that seemed equally as difficult. Witness our confidence today in the presence of pellagra, pernicious anemia and diabetes as compared with that of yes-

terday. One of the ever present problems is to get the benefits of medical knowledge to all who need it. The Utopian condition of medical practice would be, from the standpoint of the public, availability of scientific medical care to every man, woman and child the nation over; and from the standpoint of the medical profession, adequate compensation for rendering this service. That these conditions do not obtain is responsible, in a general way, for the present day agitation as to state medicine, commercialized health insurance and contract practice.

"We cannot deny that adequate medical service is not available to a large per cent of our population, neither can we deny that many physicians are receiving barely enough income on which to subsist. When a laborer at a saw mill receives only \$1.00 per day as wages, has .40 checked off for house rent and .20 for workmen's compensation insurance, obviously he cannot pay for medical attention to his family. To meet the demands of mining and lumber camps and other similar groups of industrial employees, contract service may be a necessity. But when the same system reaches out to apply to our citizenship in general, regardless of individual ability to pay and accessibility to capable doctors in independent practice, it becomes an octopus to strangle the initiative, aspiration and success of the individual doctor. The Dallas County Medical Society has very advisedly taken an advanced step with reference to this matter by adopting the following amendment to their by-laws: 'No member or combination of members shall either directly or indirectly enter into contracts or agreements to render professional service under the system known as "contract practice" except in situations wherein the needed medical and surgical services cannot otherwise be obtained.' This amendment was upheld by the Texas State Medical Association and by the Judicial Council of the American Medical Association.

"Closely allied to contract practice is commercialized health insurance. Such health and accident insurance as gives the assured free choice of physician and surgeon should be endorsed and encouraged. But when insurance companies extend their contracts to provide that the assured shall be treated by doctors whom they specify or employ, there is a violation of a principle for which we must stand; viz., freedom of choice of physician. . . .

"Certain basic principles that are significant in relation to the final report of the committee on the cost of medical care, have been so well stated by Dr. William Allen Pusey, that I am pleased to quote them.

"The good of society must be the sole aim of its (medicine's) public policies and the good of the patient the final consideration in the relations between physicians and patients.

"Experience has shown that the vast majority of disease conditions afflicting man can be most satisfactorily and economically diagnosed and treated by a competent, individual, general practitioner.

*President's Address Forty-first Annual Session, Oklahoma City, May 15, 16, 17, 1933.

"'Medicine's chief concern must be for the individual physician: the service rendered by individual physicians in the aggregate, constitutes the great bulk of medical service. The quality of service which is given depends on the competency of the individual physicians who give it.

"'The medical profession asks a career of independence under conditions of free and dignified competition.

"'In its ideas of independence, medicine has a right to control its own affairs. Its history of capacity to do so and altruism justifies this claim.'

"'However, I hasten to add that it will not do for organized medicine to be content merely to say 'We oppose all forms of state medicine, contract and industrial practice.' The experience of certain European countries in which state medicine was precipitated without the counsel or consent of the medical profession, teaches us to be if not the staying hand, at least the guiding hand in its projection.

"'Since the questions raised and many others must be answered not by the individual doctor but by doctors speaking through our association, let us consider for a few minutes the efficiency of our organization. The vital, indispensable unit is the county medical society. It is to be regretted that during the past few years many of our county medical societies have not been all that they should be or may have been in previous years. The causes of this are many and varied. In some instances, hospital staff meetings and academies of medicine and surgery have detracted from county society activities. . . .

"'Hospital staffs and academies of the specialties have their places, but they shouldn't be thought of as in any way taking the place of the county society. Questions of policy affecting the profession and the public must find their answers through the regular channels of organized medicine, of which the county society is the primary component. . . .

"'It is then evident that ours should be a militant organization. You may ask whence will come the wounds and consequent scars from attacking such propositions. The answer is, from the unsympathetic public, from the cults and charlatans and from a small minority of our own profession. 'He laughs at scars who never felt a wound.' We have not striven for a medical practice act that would protect the public from incompetent practitioners without having our efforts ascribed to selfish and ulterior motives. The splendid rating of certain of our medical institutions has been saved by the self-sacrificing behavior of one or more of the outstanding members of our profession. Turning thumbs down on such sharp practices as the secret division of surgical fees has provoked the animosity of the few engaged in this practice. The iniquities of contract practice and commercial health insurance at this moment challenge us.

"'Every day has its problems for each of us to solve in personal, individual medical and surgical practice: likewise, every day has its problems for us as

a brotherhood to solve. It is to some of the things that we together must consider that I have called your attention. If we shall be aggressive in meeting them, faithful to principles of lasting value in working them out, the results may show evidence of a scrimmage, but the scars will be a passport to our own self-esteem and that of our fellow-men."

EDITORIAL NOTES — PERSONAL AND GENERAL

" . . . DR. ROY FISHER, Frederick, was one of the members of the April class of Flight Surgeons, graduated by the School of Aviation Medicine, U. S. Army, Randolph Field, Texas. . . .

"DR. HENRY R. TURNER, Oklahoma City, was one of the guest speakers of the Arkansas State Medical Association meeting in Hot Springs, May 2, 3, 4, and delivered an illustrated lecture before the General Session on 'The Growth and Sex Hormones of the Anterior Pituitary.'

"MUSKOGEE COUNTY MEDICAL SOCIETY met at Muskogee, May 8, 1933, with the following program:

"'Upper Respiratory Infections in Children,' Hugh Evans, Tulsa.

"'New Methods in Treating Seasonal Hay Fever,' E. Rankin Denny, Tulsa.' . . ."

Have You Heard?

NED BURLESON, M.D., Prague, Oklahoma, is giving 21 acres of land to the Prague school district if the plans for developing the surrounding 15 acres materialize. The gift will be valuable to the school as considerable room is needed to place the entire school plant in one location.

RALPH MURPHY, M.D. and M. A. PORTER, M.D., of Ardmore have moved their offices to 1001 Fifteenth Avenue, N.W., in Ardmore, where they will be associated with C. D. CUNNINGHAM, M.D. and ROGER REID, M.D.

ROBERT M. SHEPARD, M.D., Tulsa physician, was recently given an award by the Oklahoma Tuberculosis Association for his 27 years as a member of the National Tuberculosis Board of Directors. Doctor Shepard is a former president of the state group.

GEORGE H. KIMBALL, M.D., Oklahoma City, recently attended the Convention of the American Association of Plastic Surgeons which was held in Dallas.

Report from the

WOMAN'S AUXILIARY

to the Oklahoma State
Medical Association

This speech was given before the House of Delegates on May 4, 1958, by Mrs. John Powers Wolff, President of the Auxiliary to the Oklahoma State Medical Association.

This year, our Program and Health Chairman, Mrs. E. C. Mohler and our Public Relations Chairman, Mrs. Clifford Basset, keynoted our program at the Fall Conference. It was entertaining as well as educational. The results were most successful. Mrs. E. H. Shuller, the AMEF chairman, reported \$640.00 as well as much more interest in AMEF than any previous year. Mrs. Cleve Beller reported 835 subscriptions to *Today's Health* and more discussion concerning the "new look" of this magazine. How about your office subscription? Legislation is relatively new to us but under the direction of our "key person," Mrs. J. F. York, and the State Chairman, Mrs. John Records, the framework is so organized that each member of our organization could be

contacted within the hour or less, either for legislation or a Civil Defense Alert.

Sooner Physician's Wife, edited by Mrs. Samuel Moore—a trained journalism student—has given our Auxiliary something new this year. Our last issue was dedicated to you, the doctors of Oklahoma. Auxiliary members from other states often write complimenting her on the paper and asking for advice.

Mrs. Milton Berg reports that many of our members have taken First Aid Training courses, Civil Defense, Home Nursing, Filter Center and prepared cars and homes for any disaster. She has made those who haven't feel guilty. The response to Mental Health shows that our members realize the gravity of the general public's understanding in this field. We have all worked for a better understanding and it is in this field that much of our Community Service has been done by cooperation with other organizations, Hospital Auxiliaries et cetera.

Recruitment has been most successful, ending with a fine Field Day for the Future Nurses. We have 41 FNC-5 which have been organized this year. Mrs. Tom Sparks, Recruitment chairman, has prepared us for enlarging our activities to include the allied fields in medicine.

Mrs. John Hayes has kept an excellent scrapbook of all our activities. Mrs. H. C. Wheeler has kept us informed as to the "news" in Safety. Most of our members have assisted other organizations in this field, such as, the PTA and others.

I am very proud to have been President of the Auxiliary to the Oklahoma State Medical Association at the time of the Semi-Centennial Celebration. We were asked by the Medical Association to assist in staffing the booths in the Cavalcade of Health, 12 hours daily for four weeks. Over 450 of the Auxiliary's members participated. This was Public Relations at its best, both within and without our organization.

It has been a pleasure to serve you and we are looking forward to working with you again the coming year.

A CONSIDERATION OF . . .

(Continued from Page 306)

common neurohumoral mechanism in the production of abnormalities is a long way from being abandoned. As a matter of fact it is being studied even more intensely with new techniques. The universality of estrogen effect has been carried down to the point of its effect on the ovum and the hyaluronic acid activity of the sperm and even to its relationship of embryo mass to amniotic fluid in the search for pertinent data. Some search is even being carried on in relation to this concept from the field of virus disease since it is noted that those diseases that disturb mentation are characterized by a disturbed sensorium during their acute phase and a virus type peripheral blood picture; more over they seem to be of benefit in nephrosis and perhaps in some of the allergic states; they are all diseases characterized by increased capillary permeability, lymph node involvement somewhere in the body, and skin manifestations. The immunologists are not to be outdone in this particular field since there is a great deal of study going on in the field of maternal-fetal immunologic reactions. This involves such concepts as allergy related specifically to ectodermal tissue. The search for new neuro-viruses and the continued culture of neurones is most interesting to watch in its relationship to the etiology of mental retardation.

The cause and effect relationship between seizures in retardation is being constantly re-evaluated in the light of new knowledge in the chemistry of the central nervous system. This involves primary acetylcholinesterase balance studies and the electrochemical nature of seizure discharges. Biochemical studies in schizophrenic children can also be added as an interesting thing to follow pertaining to the etiology of retardation. Although this list of fascinating investigative areas is only brief, it perhaps will serve a purpose in that it points up to all of us an obligation to continue our interest in this type of basic study in the firm belief that it will help us in the long run to better serve the patients that we see.

801 N.E. 13th, Oklahoma City, Oklahoma.



Mrs. E. Arthur Underwood Is Guest Speaker for Auxiliary

Mrs. E. Arthur Underwood, pictured above, was principal speaker for the Auxiliary to the Oklahoma State Medical Association at their meeting May 5, in the Balinese Room, Skirvin Hotel. Mrs. Underwood, President-Elect of the Woman's Auxiliary to the American Medical Association, chose as her subject, "Liaison, A Golden Thread."

In 1945-46, Mrs. Underwood was president of the Woman's Auxiliary to the Washington State Medical Association, and prior to that she was president of the Woman's Auxiliary to the Clark County Medical Society. She has held various offices on the National Board of the Auxiliary, most recently having served as vice-president. She is an honorary member of the Woman's Auxiliary to the Oregon State Medical Society.

During World War II, Mrs. Underwood was active in the American Red Cross nutritional and first-aid programs. She has maintained an active participation in the International Foreign Student Exchange program.

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7AM - 7PM

QUIET

ZONE



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General Practice

Clyde R. Danks, M.D., 4780 Easley Street, Millington, Tennessee, age 29, married, graduated from University of Louisville, 1955. Will be available mid-August, 1958 upon completion of military service.

Sam Davis, M.D., 1605 N.E. 38, Oklahoma City, age 33, married, graduated from University of Oklahoma School of Medicine, 1956, veteran, will be available July 1, 1958.

Archie Neal McIntyre, M.D., 138 LeHardy Dr., Savannah, Georgia, age 28, married, graduated from Louisiana State University School of Medicine, 1955. Will be available November 3, 1958 upon completion of military service.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

Charles Edward Selah, M.D., Huey P. Long Charity Hospital, Pineville, Louisiana, age 31, married, will complete board requirements in June, 1958, veteran, graduated from Tulane 1951, will be available July 1, 1958.

Ralph L. Hopp, M.D., 338 E. Kingsley, Ann Arbor, Michigan. Married, veteran, Board Certificate held in General Surgery. Graduated Indiana University, 1950, will be available July 1, 1958.

Francis Patrick Lamb, M.D., 6426 Evergreen, Berkeley 21, Mo., age 35, married, veteran, graduated from St. Louis University in 1951, Diplomate American Board of Surgery, will be available July, 1958.

Internal Medicine

Robert Edward Weaver, M.D., 1133 West Frey Street, Stephenville, Texas, age 34, married, board certified in internal medicine, graduated from University of Pennsylvania School of Medicine, 1949, veteran, prefers to practice in or near a teaching center. Will be available August, 1958.

Locum Tenens

Jack David Shirley, M.D., 430 Bellevue, Lafayette, Louisiana, age 27, married, will be inducted into U. S. Navy, October 6, 1958, graduated from University of Oklahoma in 1956, would like position for three months doing general practice. Will be available July 1, 1958.

Herbert Claiborne Jones, M.D., Jr., Box 166, University Hospital Charlottesville, Virginia, age 30, married, University of Virginia 1951, finishing board qualifications, will be available Spring, 1958.

Orthopedic Surgery

H. N. Hamilton, M.D., 13 Evergreen Road, Little Rock, Arkansas, age 36, married, veteran. Johns Hopkins, 1945, finishing Orthopedic Residency July 1958 and will be available at that time.

Thoracic and Cardiovascular Surgery

Wayne E. Hird, M.D., McGuire VA Hospital, Richmond 19, Virginia, age 31, married, Korean veteran, University of Kansas 1950, Board qualified in General Surgery, Thoracic and Cardiovascular exams will be completed by next July. Will be available July, 1958.

James L. Russell, M.D., Charity Hospital of La., New Orleans 12, La., age 30, veteran, graduated from University of St. Louis 1949, Board certified in General Surgery, Board qualified in Thoracic and Cardiovascular. Will be available August, 1958.

CLASSIFIED ADS

WELL EQUIPPED OFFICE for G. P. or O. B.-GYN. in downtown medical center, with background of large practice. Will lease, sell, or turn over everything for privilege of seeing a few old patients for two or three hours a week. Call JA 4-3203 or JA 4-3218, Oklahoma City.

CLINIC LOANS: If you are planning to build a clinic, and need to secure financing, call Pat Allen, WI 2-2402 or write 1201 Classen Dr., Oklahoma City.

FOR SALE: Attractive business building, furnishings and equipment. Close by downtown Tulsa. Building is six years old and in good condition. Now being used by two physicians. Other new buildings recently erected close by. Available by July 1, 1958. 1321 South Main or call LUTHER 4-2481 in Tulsa.

GENERAL PRACTICE FOR SALE: Good general practice for sale; completely equipped new office; ground floor. County Seat town 3,000, 25 bed local hospital, gross \$30,000. Wonderful for general surgeon. Will sacrifice. Southeastern Kansas. If interested write Key A, c/o THE JOURNAL, P. O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

Proceedings of the 52nd Annual Session of the House of Delegates of the Oklahoma State Medical Association

OPENING SESSION

The 52nd Annual Session of the House of Delegates of the Oklahoma State Medical Association was called to order at 10:30 a.m., Sunday, May 4, 1958, in the Hall of Mirrors in the Municipal Auditorium in Oklahoma City, Oklahoma, by the Speaker of the House of Delegates, Clinton Gallaher, M.D., Shawnee.

Doctor Charles E. Green, Lawton, gave the Invocation.

Doctor Gallaher asked the Credentials Committee if a quorum was present. Doctor C. Riley Strong, El Reno, Chairman of the Credentials Committee, announced that a quorum was present.

The Speaker announced the appointment of the following Committees:

Credentials Committee

C. Riley Strong, M.D., El Reno, Chairman
Hartzell V. Schaff, M.D., Holdenville
A. L. Buell, M.D., Okmulgee

Resolutions Committee

C. M. Hodgson, M.D., Kingfisher, Chairman
J. W. Murphree, M.D., Ponca City
A. T. Baker, M.D., Durant
James C. Amspacher, M.D., Oklahoma City
Iron H. Nelson, M.D., Tulsa

Sergeants at Arms

Ollie McBride, M.D., Ada
Charles E. Wilbanks, M.D., Tulsa

Tellers

M. H. Newman, M.D., Shattuck
A. L. Johnson, M.D., El Reno

Parliamentarian

William T. Gill, M.D., Ada

Constitution and By-Laws Committee

William T. Gill, M.D., Ada, Chairman
John E. McDonald, M.D., Tulsa
John E. Highland, M.D., Miami
Louis H. Ritzhaupt, M.D., Guthrie
Elmer Ridgeway, M.D., Oklahoma City

* * *

Doctor Gallaher announced as the next order of business on the Agenda of the House of Delegates a presentation of awards.

The first presentation of awards was for the winners of the Essay Contest held by the American Association of Physicians and Surgeons. This contest had been conducted on a county basis in Oklahoma, with cash prizes given to the winners by the Oklahoma State Medical Association, by direction of the Council, in session on October 6, 1957. Doctor Gallaher introduced Doctor J. Floyd Moorman, Oklahoma City, Oklahoma Representative for the American Association of Physicians and Surgeons.

Doctor Moorman presented the following awards:
First Prize—\$100—Ann Gould, Woodward, Oklahoma

Second Prize—\$50—Terry Enterline, Mooreland, Oklahoma

Third Prize—\$25—Don LaBalle, Woodward, Oklahoma
First Prize for the teacher of Ann Gould—\$50—Mrs. Hattie Brawley, Woodward

Second Prize for the teacher of Terry Enterline—\$25—Mrs. Evelyn Ewing, Woodward

All of the winners of awards were present to receive their awards.

The next award to be presented, Doctor Gallaher announced, was for the House Officers Medical Writing Contest, sponsored by the Journal of the Oklahoma State Medical Association. Doctor Gallaher introduced Doctor Ben H. Nicholson, Editor of the Journal to make this presentation.

Doctor Nicholson presented the award of \$100 to Doctor Thomas J. Lowrey, of Yukon, for his scientific paper entitled "Report of a Controlled Study of Acylanid."

Following the presentation of awards, Doctor Gallaher advised that there were a number of honored guests present. First to be introduced was Mrs. John Powers Wolff, President of the Women's Auxiliary to the Oklahoma State Medical Association.

Mrs. Wolff briefly addressed the House of Delegates, outlining the program of the Auxiliary for the past year, and thanking the physicians for their splendid cooperation.

Next to be introduced was Doctor Mark R. Everett, Dean of the Oklahoma University School of Medicine.

Doctor Everett commented briefly on future plans and current problems facing the medical school; of its aims and objectives and of the need for additional financial assistance.

Next to be introduced was E. F. Lester, M.D., Secretary of the Board of Medical Examiners of the State of Oklahoma.

Doctor Lester spoke to the House of Delegates of the work of the Medical Board of Examiners and stated the Board would need assistance in resolving a problem arising more often and relative to the licensing of foreign trained medical students in Oklahoma, as the present system is inadequate.

Doctor Gallaher presented to the House of Delegates, Mr. Bill E. Harkey, Attorney for the Board of Medical Examiners.

Mr. Harkey spoke to the Delegates concerning the Medical Practice Act of Oklahoma.

Mr. Ed Brandt, President of the Student American Medical Association, was introduced to the House of Delegates by Doctor Gallaher.

Mr. Brandt addressed the Delegates advising them of the activity of the Oklahoma Chapter of the Student A.M.A. during the past year. Mr. Brandt stated that they had an outstanding year due to the splendid

cooperation and assistance they had received from the Oklahoma State Medical Association.

Mr. Brandt made a brief report on the National Meeting of the Student A.M.A., from which he just returned.

Doctor Gallaher introduced Mr. N. D. Helland, Executive Director of the Oklahoma Blue Cross-Blue Shield. Mr. Helland made no remarks.

Thus concluded the introduction of guests.

The following announcements were made.

All voting Delegates will please be seated in the front of the room. Non-voting Delegates will please be seated in the back of the room.

The Speaker advised the Delegates present to be certain that the Recording Secretary had their names when they were given the floor.

Doctor Gallaher announced that the House would recess for luncheon at one o'clock. Luncheon to be served buffet style at the back of the Hall of Mirrors; price one dollar per plate.

It was also announced that the Oklahoma Alumni Association wished the Delegates to be advised that at 3:30 this afternoon in the Balinese Room of the Skirvin Hotel, there would be a meeting at which the gubernatorial candidates would be present to participate in a symposium. All Delegates so desiring were urged to attend.

The Speaker called for further announcements from the floor; none were forthcoming.

Doctor Gallaher asked the pleasure of the House with regard to the minutes of the last Annual Session.

It was moved by Doctor Hart that the minutes be adopted as published. The motion was duly seconded and upon being put to vote, the motion carried.

Doctor Gallaher announced that the next order of business would be the election of officers. The Speaker advised that Councilor Districts 3, 6, 9 and 12 would elect Councilors and Vice-Councilors this year.

Doctor Gallaher announced that the House would recess for ten minutes to allow the Councilor Districts to caucus.

Following the brief recess the House reconvened and the Chair advised that nomination for President-Elect would be the first order of business.

Doctor Gallaher called for nomination for President-Elect.

Doctor Carlock placed in nomination the name of A. T. Baker, M.D., Durant, for the Office of President-Elect. There were no other nominations for this office.

At this time Doctor Gallaher turned the Chair to Doctor Carlock to conduct the nominations.

Doctor Carlock called for nomination for the office of Vice-President.

Doctor Louis H. Ritzhaupt nominated Francis R. First, M.D., Checotah for the office of Vice-President. There were no other nominations for this office.

Doctor Carlock called for nominations to the office of Delegate to the A.M.A.

Doctor Wayne Starkey nominated Wilkie D. Hoover, Tulsa for this office.

Doctor Wendell E. Smith nominated Marshall O. Hart, M.D., Tulsa for the office of Delegate to the A.M.A.

Doctor C. C. Young nominated E. H. Shuller, M.D., for the office of Delegate to the A.M.A.

Doctor Carlock called for nominations for the office of Alternate Delegate to the A.M.A.

Doctor George T. Ross nominated Doctor Bruce R. Hinson, Enid, for the office of Alternate Delegate to the A.M.A.

Doctor H. E. Denyer nominated Doctor Charles E. Wilbanks, Tulsa, for the office of Alternate Delegate to the A.M.A.

Doctor Carlock called for nominations for the office of Speaker of the House of Delegates.

Doctor George T. Ross nominated Clinton Gallaher, M.D., Shawnee, for the office of Speaker of the House. There were no other nominations for this office.

Doctor Carlock called for nominations for the position of Vice-Speaker of the House of Delegates.

Doctor Malcom E. Phelps nominated J. Hoyle Carlock, M.D., Ardmore for this position.

Doctor Carlock requested that Doctor Phelps withdraw the nomination. Doctor Phelps consented to withdraw his nomination.

Doctor Clinton Gallaher nominated C. M. Hodgson, M.D., Kingfisher for the office of Vice-Speaker of the House of Delegates.

Doctor E. Cotter Murray nominated Elmer Ridgeway, M.D., Oklahoma City, for the office of Vice-Speaker of the House of Delegates.

Doctor Ridgeway requested permission to have the nomination withdrawn. Doctor Murray refused permission for withdrawal.

Next were the nominations for Councilor and Vice-Councilor.

District 3—Doctor George T. Ross nominated C. M. Hodgson, M.D., Kingfisher for Councilor, and Henry T. Russell, M.D., Enid, for Vice-Councilor.

District 6—Doctor Elmer Ridgeway nominated P. E. Russo, M.D., Oklahoma City, for Councilor, and E. E. Shircliff, M.D., Oklahoma City, for Vice-Councilor.

District 9—Doctor Francis R. First nominated R. L. Currie, M.D., Sallisaw as Councilor, and Burdge F. Green, M.D., Stilwell, as Vice-Councilor.

District 12—Doctor Ollie McBride, M.D., Ada, nominated William T. Gill, Ada, as Councilor, and M. E. Robberson, M.D., Wynnewood, as Vice-Councilor.

At this time Doctor Gallaher resumed the chair and announced that it was the privilege of the Delegates to make further nominations from the floor if they so desired. There were no further nominations at that time.

Doctor Gallaher announced that the 1959 Annual Meeting would be held in Tulsa on April 19-22, 1959.

Doctor Gallaher announced that as the next order of business, reports from the officers would be heard.

The Speaker called on Doctor Wilkie D. Hoover, Tulsa, Delegate to the A.M.A. for a report.

Doctor Hoover reported briefly on the last A.M.A. Meeting in Philadelphia, in December, 1957, and problems which had been discussed, i.e., the revision of the Principles of Medical Ethics; Social Security; Medicare, etc.

Doctor Hoover thanked the House of Delegates for the privilege of serving as Delegate to the A.M.A. for the past two years.

Doctor Gallaher called on Doctor Malcom E. Phelps, El Reno, Delegate to the A.M.A. for a report.

Doctor Phelps expressed his gratitude to the House for the opportunity afforded him to be its representative to the House of Delegates of the A.M.A.

Doctor Phelps reported that Doctor Hoover, at the coming A.M.A. meeting in June, had been chosen as Chairman of one of the Reference Committees and as a member of another.

Doctor Phelps reported further on the A.M.A. meeting in Philadelphia, going into other matters which were discussed and resolved at that meeting. Doctor Phelps reported on the Heller Report, having to do with the re-organization of the executive structure of the A.M.A.; the fluoradation of water, as a method of reducing the incidence of dental caries in childhood.

The Speaker called on Doctor R. Q. Goodwin, Oklahoma City, Alternate Delegate to the A.M.A. for his report.

Doctor Goodwin reported briefly on the function of the Alternate Delegates, as it pertained to attending reference committee meetings, and projecting problems to the committees.

Doctor Gallaher called on Doctor E. H. Shuller, McAlester, Alternate Delegate to the A.M.A. for a report.

Doctor Shuller reported very briefly stating that he felt the reports of Doctors Phelps, Hoover and Goodwin had very well covered all salient points.

Doctor Shuller thanked the Delegates for the privilege of serving as Alternate Delegate.

Doctor Gallaher asked if there were any reports from the Councilor Districts. None were forthcoming.

The Speaker announced that the next order of business would be the report of the Council. The report was delivered by Doctor John Flack Burton, Oklahoma City, President of the Association.

Council Report

The 52nd Annual Report of the Council to the House of Delegates finds many problems facing the profession unsolved. These problems are in all fields of endeavor and deserve our most serious considerations.

This report, as all previous reports, cannot possibly deal with all the accomplishments, programs and problems of the Association during the past year and projected for the future. The Council therefore, wishes to recommend for the action of the House of Delegates the following information and business.

* * *

Membership

The paid membership of the Association as of May

1, 1958, was 1,498, an increase of 34 over the previous year. Members who paid ½ dues were 29, a decrease of 41 which can be accounted for due to the fact that the House of Delegates changed the Constitution and B-Laws to provide for only one year, instead of two years, for this exemption. In addition, there were 140 life and honorary members contrasted to the last year's total of 149. Thus making the total membership of the Association 1,667 for this period in 1958.

Finances and Budget

The Council again makes the comment that the estimating of income and expenditures of the Association at this time for the year of 1959 is a virtual impossibility.

As anticipated last year, the operating costs of the Association owned headquarters has not exceeded the amount previously paid in rent although nearly so, and for this reason recommends that the dues remain as for the last eight years at \$42.00.

The Association on December 31, 1957, had cash on hand in the bank \$6,117.03, which sum does not include any 1958 dues. In addition, the Association has on deposit in the Ponca City Building and Loan, in Ponca City; the Home Savings and Loan Companies of Bartlesville and Lawton, \$21,276.11 and earning 3½ percent interest.

The Houe of Delegates in 1956 voted to establish a building fund fee for all new members in the amount of \$35, said monies to be maintained in a special fund and used only for maintenance and repair of the Executive Office. This fund is now in the amount of \$2,623.07.

Budget

INCOME

Dues	\$65,000
Annual Meeting	9,000
Journal Advertising	36,000
Misc. (Including Interest)	2,000
	<hr/>
	\$112,000

EXPENDITURES

Office Expense (Including Salaries)	\$53,000
Annual Meeting	10,000
Legal Counsel	1,200
Journal	39,000
Travel, Out of State	4,000
Committee	3,500
	<hr/>
	\$110,700
Income over expenditures	\$1,300.00

Executive Office

The beautiful and spacious headquarters building, located at 601 N.W. Expressway, is something of which we should all be justly proud.

During this year it has proven its worth by being utilized in many ways by the profession, the Ladies' Auxiliary, the Student A.M.A. and it's Auxiliary.

Due to the Convention schedules in Oklahoma City and Tulsa which have been growing larger each year, the Council recommends that the meeting place be scheduled two years in advance in order that advantageous dates may be secured.

If this recommendation is approved, your Council recommends that the 1960 meeting be held in Oklahoma City, and the 1961 meeting be held in Tulsa, the dates to be approved by the Council and the respective County Societies.

The Council commends Doctor Allen Greer, the General Chairman and Doctor Hugh Stout, the Scientific Work Chairman, and their Committees, for the work done in making the arrangements for this Annual Meeting.

Honorary-Life Members

The Council has had the following Honorary-Life membership submitted and recommends to the House of Delegates their election.

Ellis Lamb, M.D., Clinton, Oklahoma
T. H. McCarley, M.D., McAlester, Oklahoma
James T. Riley, M.D., El Reno, Oklahoma
Walter J. Baze, M.D., Chickasha, Oklahoma
A. C. Hirschfield, M.D., Oklahoma City, Oklahoma
A. S. Nuckols, M.D., Oklahoma City, Oklahoma
D. D. Paulus, MD., Oklahoma City, Oklahoma
Curt Von Wedel, M.D., Oklahoma City, Oklahoma
Rex Bolend, M.D., Little Rock, Arkansas (Deceased)
John F. Park, M.D., McAlester, Oklahoma
Marvin E. Stout, M.D., Oklahoma City, Oklahoma
Fred Bert Hicks, M.D., Oklahoma City, Oklahoma

Cavalcade of Health

The Cavalcade of Health, sponsored by the Association during the Semi-Centennial celebration in Oklahoma City, was without doubt an outstanding success. Thirty-three organizations with 42 exhibitors participated in the Cavalcade which featured "Juno" the plastic woman, owned by the Dominican Republic, and the first public showing of an Atomic Reactor.

During the three week show over a quarter of a million people went through the Cavalcade Building and many came several times.

The A.M.A. exhibit on "Life Begins" at times had a line over half a block long.

Income from the sale of space and the soft drink machine amounted to \$22,508, of this amount \$17,963.35 was spent in organizing and conducting the show, leaving a balance of \$4,544.65, which was refunded to the participating organizations with the suggestion that they might like the refund to be given to the Oklahoma Medical Research Foundation. Action on this suggestion: a total of \$550.00 to the Foundation from four organizations: Smith, Kline and French; Mid-State Dairy Foundation; The Oklahoma County Medical Society, and Blue Cross-Blue Shield.

While such an endeavor could not have been accomplished without the cooperation of many, certainly the greatest accolades should go to Henry H. Turner, M.D., of Oklahoma City, who not only originated the idea, but acted as the Chairman of the Committee. The Association owes a great deal of gratitude to Doctor Turner for his job so well done.

Journal

Special attention is called to the House of Delegates to the greatly expanded *Journal* of the Asso-

ciation; expanded not only in size, but in the number of departments of new coverage.

It is of note that the last three years the total number of pages of copy has increased from 421 to 620, and the number of pages of advertising from 494 to 704.

The Council commends the Editorial Board and its Editor, Doctor Ben H. Nicholson for the outstanding work they have done.

Student A.M.A.

The Council feels that the Delegates should know that not only does the University of Oklahoma School of Medicine have a chapter of the Student A.M.A., but in addition thereto, the first Auxiliary to a chapter was established by the Oklahoma Chapter, and through the efforts of the Oklahoma Chapter Auxiliary there are now 34 Auxiliaries in existence. Mrs. Robert Simon of Alva, has been the organizing chairman for the national movement.

The Association this year continued its custom of entertaining the Oklahoma Chapter at the beginning of the school year. The entertainment consisted of a dinner held at the Hillcrest Country Club, with approximately 200 present. An innovation this year was the occasion of having the M.D. Preceptors and their Preceptees attend together.

Federal Legislation

Of immediate interest to all members of the medical profession is HR 9467, commonly referred to as the Forand Bill.

This legislation would amend the Social Security Act in order to provide medical and hospital care for anyone who is drawing benefits from Social Security coverage. It is estimated that this would mean an additional coverage of 13 million people.

On April 16, representatives of all County Medical Societies, and members of the Council met at the Executive Offices with Mr. Aubrey Gates, representing the A.M.A., for a discussion on the implications of the Bill and the manner in which it might be opposed.

The culmination of this meeting was the decision that a special Committee would be appointed representing the different Congressional Districts, in order that an intensive educational campaign could be instituted. This Committee is now in the process of being appointed.

Blue Shield Coverage for Physicians

The Council advises the members of the Blue Shield Board of Trustees, in regard to the coverage of physicians by Blue Shield, be as follows:

The Custom of not charging fellow physicians continue and that they should not be included in Blue Shield coverage.

Medical Care for Public Welfare Recipients

The Council heard the report of the Committee on Medical Care for Recipients of Public Welfare Assistance and decided to send the report without recommendation to the House of Delegates.

A further motion was made and passed to the effect "Should the House of Delegates elect to continue a program with the Department of Public Welfare, it should be upon a written agreement."

Medicare

The Council heard the report of the Committee on Medicare accepted the report with thanks to the Committee and decided to refer the report to the House of Delegates for consideration without recommendation.

Public Policy

The report of the Public Policy Committee was approved.

Constitution and By-Laws

The report of the Committee on Constitution and By-Laws was approved. This report to be presented to the House of Delegates for consideration.

This concluded the report of the Council. Doctor Gallaher asked whether the House wished to consider specific items in the report, and approve the report as a whole or adopt the report as a whole.

Doctor Russo moved that the report of the Council be adopted as a whole. The motion was duly seconded. Upon being put to vote, the motion carried.

At this time, Doctor Gallaher announced that the House of Delegates would be in recess for one hour while luncheon was served as announced earlier.

The House reconvened at 2:00 p.m.

Doctor Galaher advised the Delegates that the next business on the Agenda of the House were the reports from the Association Committees.

The first report to be heard was that of the Insurance Committee. This report was given by Doctor Ralph A. Smith, Oklahoma City, member of the Committee, in the absence of the Chairman, Doctor Basil A. Hayes, Oklahoma City.

Report of the Insurance Committee

The members of the Insurance Committee for the past year have been:

Basil A. Hayes, M.D., Oklahoma City, Chairman
Ralph A. Smith, M.D., Oklahoma City
Edwin C. Yeary, M.D., Ponca City
Port Johnson, M.D., Muskogee
C. E. Woodard, M.D., Drumright
Curtis Cunningham, M.D., Clinton
John Curtis Berry, M.D., Norman

The Committee has had many matters to consider this year, with four major objectives. The first of these objectives being a study and review of the Group Health and Accident Insurance for members of the Association, with a view to expansion of the program. Over the past year programs of this nature, as operated by other State and Medical Societies, have been studied.

The Committee is now in the process of resolving the information which it has gathered, and some of the points to be included in a new, and more advantageous program for the physicians of the Association are:

(1) Membership in the Oklahoma State Medical Association to be the basis for enrollment.

(2) No physical examination during original enrollment if ___ percent enroll.

(3) Age 65 or under, but perhaps age limit may be extended to 70.

(4) After initial enrollment members who did not enroll initially, will have to satisfy underwriting requirements, but new members may join without such proof within the first year.

(5) Income and catastrophic clauses to be optional to members.

In the near future, following further consideration, a proposal concerning this insurance program will be submitted to the Council of the Association for its further consideration.

The Committee has also worked this year on revision of the Standard Insurance Reporting Form. The Form previously developed by the Committee, now in use, was felt by the Committee to need further alterations, additions, improvements, etc., in order to be completely acceptable.

Doctor C. E. Woodard, of Drumright, was appointed Chairman of the Committee to study and further develop a suitable form which would meet existing needs. Doctor Woodard, with the assistance of the Executive Office, developed a form which was presented to the Insurance Committee on March 6, 1958. The form was approved by the Committee.

The form has been given to the Oklahoma Hospital Association, who plan to print it on the back of their hospital form. The form has also been approved by the Oklahoma Health and Accident Insurers. The Committee plans to submit the form to the Health Insurance and Accident Insurers. The Committee plans also to submit the form to the Health Insurance Council in an effort to get its endorsement, and to endeavor to obtain the agreement of the HIC to alter its present form to conform with the form developed by the Committee. This form will also be submitted to the home offices of all insurance companies in the State of Oklahoma.

Accompanying the Standard Insurance Reporting Form will be a physician's statement for services rendered, which has also been developed. The form, and the statement, was reproduced in the May issue of the Journal of the Association, along with an article by Doctor Woodard. Copies of the form and the statement are available in the Scientific Exhibit section in the Zebra Room of the Municipal Auditorium.

Another major effort of the Committee this past year has been concerned with the Group Life Insurance Program of the Association, held by the Massachusetts Mutual Life Insurance Company.

In an effort to clarify the offering of an additional \$10,000 coverage to physicians the following is excerpted from the minutes of the meeting of the Insurance Committee on November 3, 1957. "There has been in the past year a provision made whereby a new participant in this group insurance may select

his choice of ten or twenty thousand dollars coverage, with the ten being issued without evidence of satisfactory physical condition, but the additional \$10,000 for those new participants selecting \$20,000 will be subject to the approval of a health statement. If a new member wishes \$10,000 it will be issued to him void of any special requirements, but should he select \$20,000 he will be required to complete a health statement satisfactory to the Massachusetts Mutual; if this health statement is disallowed he will be limited to \$10,000."

On the theory that new participants in most cases will be in the younger age brackets, the Committee felt that the health statements would be approved in almost every instance, and that this would be the most workable option to fulfill the Association's interest in twenty thousand dollars coverage. If at a future premium paying time the new member elects to take the additional ten thousand, he may then submit his health statement for the consideration of the Massachusetts Mutual, and if it is satisfactory, he will be allowed the additional ten thousand.

The Committee further recommends that the rate scheduled be altered by bracketing age groups; these brackets and their respective premiums are as follows:

Age	Life and A.D.D. Ins.	Annual Premium
30-39	\$10,000.00	\$ 61.70
40-49	10,000.00	105.30
50-54	10,000.00	167.00 •
55-59	10,000.00	258.10
60-64	7,500.00	262.43
65-70	5,000.00	279.45

As of February 1, 1958, the enrollment in the Massachusetts Mutual Group Life Insurance program for the Association was 452. There have been as of April 1, 1958, eight deaths and two permanent disabilities. The eight deaths represent \$110,000 paid out in death benefits.

Last on the report, but certainly not in importance, is work done by the Committee this year in its constant effort to reduce the incidence of malpractice claims.

A Sub-Committee of the Insurance Committee was appointed. The members are Doctor Ralph A. Smith, Oklahoma City, Chairman; Edwin C. Yearly, M.D., Ponca City, and John Curtis Berry, M.D., Norman. The purpose of the sub-committee is to investigate and act as a liaison group between the Insurance Committee and the Insurance Carrier.

This Sub-Committee has had four meetings this year, and have given special attention to threatened malpractice suits by meeting with the physicians involved, the attorneys of the Association, and the insurance carrier. These meetings have been of great value.

The picture as it pertains to malpractice cases in this State at the present time is reflected in the following statistics as given the State Office of St. Paul Mercury; it includes premiums paid and money paid out during each of the last three years.

Year	Premium	Paid Out
1951	\$102,474.97	\$ 19,836.11
1956	128,150.81	14,708.66
1957	209,506.76	150,221.90

This includes the \$115,000 settlement of a recent case in Tulsa, but it does not include the other 69 cases which are unsettled and for which the company has set up a reserve of \$382,571 to cover the anticipated losses. Final settlement of these may require more or less money than this.

Since the inception of the program in 1943 there have been a total of 427 cases. The following is a breakdown of the Counties, and the number of cases in each county:

Atoka	2	McCurtain	2
Blaine	3	Muskogee	10
Caddo	3	Murray	1
Carter	5	Okmulgee	12
Choctaw	1	Oklahoma City	168
Comanche	7	Osage	4
Craig	2	Ottawa	7
Creek	1	Pittsburg	7
Custer	2	Pontotoc	7
Ellis	5	Pottawatomie	12
Garvin	2	Seminole	4
Garfield	4	Stephens	3
Grady	2	Tulsa	104
Hughes	3	Tillman	1
Johnston	1	Wagoner	3
Kay	4	Woods	2
Kingfisher	1	Washington	3
Kiowa	2	Woodward	3
LeFlore	1	Lincoln	3
Logan	5	Mayes	4

Your Committee recognizes the fact that there has been a sizable increase in premiums. This was reported to the House of Delegates last year, and by this report it can readily be seen that the company was justified in this rate increase. It is hoped that by diligent effort upon the part of everyone that the incidence of these suits can be drastically reduced, in order that there may be a subsequent reduction in premiums. A reduction in premium, however, can only be justified with a reduction in losses, and in this instance the responsibility is with the profession itself.

The Committee would like to make a special comment as to the effort being put forth by the Tulsa County Medical Society with regard to the situation that has existed in that County.

The Committee recommends that when each of you return to your County Medical Societies, you do what you can to make arrangements for a special meeting with your Society on the subject of "Malpractice Insurance."

The Executive Office will be in position to supply the County Societies with the personnel to put on the program.

Respectfully submitted,

Basil A. Hayes, M.D., Chairman

* * *

At the conclusion of the report it was moved by

Doctor Hart that the report of the Insurance Committee be accepted. The motion, upon being put to vote, was carried.

The next report on the Agenda of the House, Doctor Gallaher advised, was that of the Committee on Medicare. Doctor Gallaher presented Doctor Walter E. Brown, Tulsa, Chairman of the Medicare Committee, who gave the following report.

Medicare Committee Report

The first annual report of this Committee was rendered a year ago by Doctor H. H. Macumber, at which time he outlined the function of the Committee as having to do with the implementation and administration of Public Law 569, commonly designated as Medicare, in the State of Oklahoma. The contract between the Oklahoma State Medical Association and the Department of Defense for operation of Medicare in Oklahoma was renegotiated on June 30, 1957, for a period of twelve months ending June 30, 1958.

At the time Doctor Macumber made his report last year, he presented certain figures and used charts to indicate the extent of the program for the period of 1957 which he could report at that time. We have completed the total figures for the year of 1957, which are as follows: Total claims paid 12,535; total amount paid \$760,070.89. These figures are broken down to reveal the following: 23.5% of all claims for medical services and 11.3% of the total payment in dollars was for medical services; 2.2% of the claims were for surgical services; 31.8% of the fees paid were for the same; 39.1% were for obstetrical services and 54.4% of the total dollars paid were for obstetrics; only 2.3% of the claims submitted were for radiological services and this amounted to only 0.7% of the total in dollars; for laboratory there was 8.9% of the claims submitted and 1.8% of actual dollars paid. This is illustrated graphically in an accompanying chart, which shows the division of the medicare dollar in Oklahoma for 1957. The operation of the program was of course Statewide and the total number of physicians to whom claims were paid in 1957 was 1073. It is interesting to note that in analyzing the payments for services and the number of cases handled, by far the greatest number of cases were from Comanche County with Oklahoma County second and Carter County third. Further analysis of the figures brings out the fact that 79.7% of the total medicare payments for 1957 were made to ten counties, namely, Comanche, Oklahoma, Carter, Garfield, Tulsa, Cleveland, Jackson, Pittsburg, Muskogee and Washington.

The figures for 1958, January through April 30, have been running somewhat higher. For the four months, a total of 5,195 claims have been paid, amounting to \$326,494.87, whereas the average claim for 1957 was \$60.63. The average case payment so far in 1958 is 62.65. The total payments to physicians of Oklahoma during the seventeen months operation of Medicare is \$1,086,565.76. We, of course, have no knowledge as to the amount paid to hospitals for Medicare, inasmuch as the Department of Defense entered into a contract with Mutual of Omaha to pay all hospital claims in this State.

The Medicare Committee, as you know, is composed of nine members of the Association who are appointed annually by the President of the Association. This Committee meets monthly and on several occasions we have had to call extra sessions to handle an unusually large backlog of cases, and as in the past two months, to go over recommended changes in the fee schedule. Oklahoma Physicians Service, Blue Shield, has acted as the fiscal agent for the Medical Association, and the Committee wishes to express sincere thanks to the Blue Shield organization for their efficient operation and the great amount of extra help that has been rendered us during the past year.

As can well be imagined from reference to the chart, the most difficulty encountered by the Committee has been in regard to obstetrical cases. In this regard, the payment for drugs and medications used during pregnancy has been a particularly troublesome item. As you know, the Department of Defense has refused to negotiate for payment other than to doctors and hospitals in the Medicare program and thus it is necessary for doctors to submit bills for drugs and reimburse the druggists, except in the few instances where doctors themselves dispense drugs. The law specifically states that payment of drugs is authorized for illness "directly related to pregnancy" and interpretation of this nebulous clause has caused considerable difficulty. It is with this experience in mind that the Committee has recommended that in the event of renegotiation of our contract, that the payment for drugs be completely eliminated and that the patients be reminded that they may obtain the necessary medicines through the dispensary at their military post.

A great amount of time has been spent in reviewing the entire fee schedule with reference to specific recommendations from doctors over the State, and with particular reference to the average fees charged in the ten counties in which it has been shown that 80% of the Medicare patients are taken care of.

CONCLUSION: The over-all impression obtained by this Committee is that the doctors of Oklahoma have cooperated extremely well in carrying out the Medicare Program. A few individuals have been highly dissatisfied and inevitably there have been sharp disagreements on claims submitted, but these have been in the extreme minority. It is the unanimous opinion of the Committee that the know-how of the Blue Shield has been invaluable in the operation of this program and continuance of Blue Shield as the Fiscal Agent is to be desirable.

It is thus the recommendation of this committee that the Oklahoma State Medical Association renew its current contract under Public Law 569 with the Department of Defense for operation of the Medicare Program from June 30, 1958 to June 30, 1959 with alterations in the contract as suggested in this report.

This report respectfully submitted,

Walter E. Brown, M.D., Chairman; Horton E. Hughes, M.D., Thomas C. Points, M.D., Charles E. Green, M.D., David C. Ramsay, M.D., Robert C. Lawson, M.D., William B.

Following the rendering of this report by Doctor Brown, it was moved by Doctor Pollack that the report of the Medicare Committee be accepted by the House of Delegates. The motion was duly seconded, and following brief discussion, the motion was put to a vote and carried.

The next report to be given was that of the General Health Committee, Doctor Gallaher stated. In the absence of the Chairman, Doctor Charles E. Green, Lawton, the report was read to the House by the Recording Secretary.

General Health Committee Report

During the past year, your General Health Committee has made a continuing effort in the field of health education. Although no spectacular accomplishment has been realized, the Committee has been able to lend its assistance to the success of several statewide health education projects.

Beginning in August with the arrangement of an exhibit and speaker for the State Farm Home Conference, the Committee has performed similar services designated to bring authoritative health information to the public. Other conference in which the committee has participated are the Oklahoma State Dieticians Annual Meeting and the recent Food Comes First Conference. In both cases, it was possible to supply exhibits and arrange for a speaker of national prominence. Exhibits have already been scheduled into the summer months.

The House of Delegates is already aware that the active promotion of the annual State Rural Health Conference was temporarily discontinued by the Committee in view of the emphasis on the Cavalcade of Health project which shared a similar purpose. In spite of the temporary shelving of this activity, however, the Committee has continued in the investigation and planning associated with the renewal of such an endeavor.

Your Chairman was privileged to attend the National Rural Health Study Conference at Purdue University, where representatives of State Medical Associations met to resolve problems common to both agriculture and medicine. As a result of that meeting and after careful analysis of the local situation, your Committee has developed the following recommendations regarding future activities in the rural health field:

It is respectfully recommended that four regional rural health conferences be sponsored by the Association in lieu of a single state-wide conference. The reason for this suggestion is that the Committee feels that the participants of past conferences were too heavily weighted with full-time workers in the public health field and too few civic leaders and rural residents were able to attend due to their geographic locations. Under the new proposal, a traveling speaker team from the Association could work with four host county medical societies, who in turn, would

represent four quadrants of the State. With the co-sponsorship of a host County Medical Society, the speaker team would have an unexcelled opportunity to bring their rural health messages to the people best qualified to take action at the community level.

It is hoped that the House of Delegates will offer endorsement of this activity and so instruct new members of the General Health Affairs Committee.

Following this report, Doctor Gallaher asked the pleasure of the House with regard to the report.

It was moved by Doctor Shuller, and duly seconded, that the report be accepted. The motion carried.

Doctor Gallaher announced that the next report to be given would be from the Public Policy Committee, said report to be given by Doctor Elmer Ridgeway, Oklahoma City, Chairman of the Committee.

Public Policy Committee Report

The Public Policy Committee did not initiate any new program during the past year.

Projecting for the coming year, however, is another matter since in 1959 the State legislature will be in session.

Legislative-wise, several proposals can be anticipated. There are indications that some groups may submit a proposal for a Board of Medical Examiners in the Healing Arts to examine and license doctors of medicine, osteopathy and chiropractors. This type of legislation was passed in Kansas in that State legislature, and subsequently tax-supported hospitals opened their staffs to certain members of the osteopathic profession.

It is hoped that the State Law Enforcement Association will take the lead in introducing and supporting legislation for the medical examiners system as was intimated recently in the press.

The Legislative Council of the Legislature, with committees identical to the legislature, has had several proposals submitted to its Public Health and Public Welfare Committees. These are as follows:

1. A study for the need of regulations for Rest and Nursing Homes.
2. Regulation or abolition of fluoroscopes for non-medical purposes.
3. Regulation of the sale of fireworks.
4. Study of the care and treatment of alcoholics.
5. Creation of workshops for epileptics.
6. A study of the hospitalization and medical care program of the Public Welfare Department.

From the standpoint of the Association, the Oklahoma Eye, Ear, Nose and Throat Society has requested the Association to support a bill to license Dispensing Opticians. Said licensing to be by the Medical Board of Examiners.

The Oklahoma Pathology Association has also requested the support of a measure to clarify the statutes as it pertains to consent for performing autopsies.

Also proposed by the A.M.A. is a **Uniform Hazardous Substances Act**. The proposed legislation is in-

tended as a model for uniform laws to require declaration of hazardous ingredients and warning statements on the label and in the accompanying literature of chemical products used in the home and elsewhere. Also a new class of products, not heretofore considered in label legislation, are included in the measure. It requires identification and warnings for strongly sensitizing chemicals.

According to the standards in this bill, a toxic (poisonous) substance is any material which kills half or more of a group of laboratory animals (rats) within two weeks in a single oral dose of 5 grams/kilogram or less on skin contact for 24 hours in a concentration of 1 gram/kilogram or less.

Your Committee recommends that these proposals be supported.

From the standpoint of Federal legislation the greatest emphasis will of course be on the Forand Bill. Your Committee will work closely with the Special Committee which has been created by the Council, and also cooperate with the Washington Office of the A.M.A. in other Federal legislation in which there is an interest to the profession.

Doctor Gallaher asked the pleasure of the House with regard to this report. It was moved by Doctor John E. McDonald that the report of the Public Policy Committee be accepted. The motion was duly seconded, and upon being put to vote, the motion carried.

Doctor Gallaher announced that the next report to be heard would be that of the Asian Influenza Advisory Committee. In the absence of the Chairman, Doctor J. Floyd Moorman, Oklahoma City, the report was read by the Speaker.

Asian Influenza Advisory Committee

The Asian Influenza Advisory Committee met at the State Department of Health Building, September 19, 1957.

The following attended: Members of the Committee: J. Floyd Moorman, M.D., Oklahoma State Medical Association; Mrs. Raymond Crews, State Hospital Association; Jennell Hubbard, R.N., State Nurses Association; Mrs. Earl W. Gilliam, State Pharmaceutical Association; W. H. Roberts, D.O., State Osteopathic Association.

Also attending were: James O. Wails, M.D., G. F. Mathews, M.D., and F. R. Hassler, M.D., of the State Health Department; Mr. Don Blair and Mr. Dick Graham of the Oklahoma State Medical Association.

The following statement was made:

The State Department of Health and the Advisory Committee have no authority whatever over how the vaccine will be distributed. Based on the present information, it is unlikely that vaccine in any sizeable amount will be available in the immediate future.

2. When the vaccine is available, distribution will be through the usual commercial channels.

3. As vaccine is available, the Committee recommends the following priorities be applied insofar as practical and possible:

a. Doctors and nurses, all hospital and nursing

home personnel. Pharmacists and public health personnel.

b. Essential personnel groups: Firemen, policemen, transportation, communication, public utility, sanitation workers and school teachers.

c. Pregnant women. Infants under one year of age but over three months of age.

d. Elderly persons (perhaps those over fifty years of age), and patients with chronic diseases of heart, lungs, diabetes, etc.

The incubation period (the period of time from exposure to coming down with the disease) is so short that a dose given less than 10-14 days before exposure does not benefit the person.

If information is desired after the disease develops, call your physician for advice. Diagnosis and treatment of Asian flu is no different from any other type of flu.

Preventive measures consist of avoiding crowds, unnecessary travel, covering the mouth when coughing and sneezing, hand washing, sterilization of eating and drinking equipment used by patients.

Those receiving the vaccine were questioned in regard to allergy to eggs.

By December 1957, an adequate amount of vaccine was available due to a record production by the five pharmaceutical firms authorized to prepare the vaccine.

A rather severe epidemic of Asian Influenza occurred at the state University of Oklahoma and at several other schools in the State. Fortunately the mortality was low. The disease was rather widespread over the state during the fall and winter months, and in many instances recovery was slow.

Those who were fortunate to receive the vaccine early undoubtedly obtained some protection.

Respectfully submitted,
J. Floyd Moorman, M.D.

* * *

The Speaker advised that the report on Asian Influenza required no action, but was a matter of information for the House.

The next report on the Agenda of the House, the speaker advised, would be from the Committee on Constitution and By-Laws. This report to be given by Doctor L. C. McHenry, Oklahoma City, Chairman of the Committee.

Doctor McHenry reported briefly on the new proposed Constitution and By-Laws, which at this time are being submitted to the House of Delegates.

Doctor McHenry advised that the Constitution had been published in the Journal of the Association 60 days prior to this meeting, as directed by the Constitution and By-Laws now in effect, and that the By-Laws had been distributed 30 days prior as also prescribed.

Doctor Ritzhaupt spoke briefly in opposition to the proposed instruments.

At this time, Doctor Burton called on Mr. Roy Lytle, attorney for the Association to clarify points regarding the Constitution and By-Laws.

Following My Lytle's remarks, it was moved by Doctor Gill that the report of the Committee be adopted and the revised and rewritten Constitution and By-Laws, as published, become the Constitution and By-Laws of the Association. The motion was duly seconded.

Following further comment from the Delegates, the following substitute motion was made by Doctor Ritzhaupt: The Constitution and By-Laws be referred to the House Committee on Constitution and By-Laws for further consideration. This motion was seconded.

Following further discussion, Doctor Gallaher called for a vote on the substitute motion, the motion was lost. Doctor Gallaher then called for a vote on the original motion. This motion carried.

Doctor McHenry stated that since the distribution of the instruments, there had been minor alterations. A section 6.00, of Chapter 1, concerned with the regaining of membership; Section 4.00, Chapter 4, Duties of the Council. (These alterations in the By-Laws.

Doctor Gill moved that the Committee report and recommendations of the By-Laws be accepted now and referred to the House Committee on Constitution and By-Laws; with a final report to be rendered at the Closing Session by that Committee. This motion was seconded and carried. (The Constitution and By-Laws are reprinted at the close of the opening session.)

The Speaker announced that the next report would be from the Occupational Medicine Committee. In the absence of the Chairman, Doctor Kieffer Davis, Bartlesville, the report was read by the Vice Speaker, Doctor J. Hoyle Carlock.

Occupational Medicine Committee

An evening meeting of the Committee on Occupational Medicine of the Oklahoma State Medical Association was held on January 15, 1958 at the Executive Offices of the State Association. All but one member was in attendance.

Committee proposals submitted to the Association at the time of the 1957 Annual Meeting, and which were approved by both the Council and the House of Delegates, were reviewed. Inasmuch as the functions as elicited in the Committee's first report imply a long range program of activity, the members of the Committee elected to begin constructive work in the general areas where the present need appears to be the greatest. It was unanimously agreed that education in this most recently accredited specialty field of occupational medicine was undoubtedly the first and most important step for the Committee to take. This activity is a twofold one:

- (1) Make available proper and current information regarding Occupational Medicine to the practicing physicians of Oklahoma.

- (2) Enlightenment of the members of the Committee in regard to activities in other allied Medical and Legal groups which would have a bearing on the long-range work of this Committee.

The Journal of the State Association is the best

medium through which Occupational Medicine information could be availed the individual physicians in Oklahoma. Although a few such articles have been published in this Journal from time to time, it is the hope of the Committee that within the near future space in the Journal could be allotted rather frequently for question and answer series relative to occupational medicine. The Committee decided also that a Scientific Exhibit on Occupational Medicine presented at the 1958 Annual Oklahoma State Medical Association Meeting would be effective in bringing this specialty field of practice to those attending.; Arrangements for this exhibit were subsequently made.

All agreed that general education of the Committee can be best achieved through sub-committee liaison with others in the Medical and Legal fields having interests common to ours. Consequently, a sub-committee is being established to develop proper liaison with others interested in problems relating to Workman's Compensation.

It was felt that the membership of this Committee should be expanded in the best interest of our future activities. President Burton has appointed four additional members, and our Committee now numbers nine.

Much is to be accomplished by this Committee in time to come. It is the general feeling of the Committee members, however, that "haste must be made slowly."

On behalf of the membership of this Committee—each of whom has a profound interest in Occupational aspects of medicine, I am pleased to make this report.

Respectfully submitted,

Kieffer Davis, M.D., Chairman; Committee Members—Thomas H. Davis, M.D., Tulsa; Jean S. Felton, M.D., Oklahoma City; Charles M. O'Leary, M.D., Oklahoma City; David C. Ramsay, M.D., Ada; Tom Hall Mitchell, M.D., Tulsa; Wilkie D. Hoover, M.D., Tulsa; Earl D. McBride, M.D., Oklahoma City, and William Best Thompson, M.D., Oklahoma City.

* * *

Doctor Gallaher advised that no action would be required on this report.

Doctor Gallaher advised that the next report would be that of the Committee on Civil Defense, and would be given by William H. Reiff, M.D., Oklahoma City, Chairman.

Report of Civil Defense Committee

Much Civil Defense planning has been done at Federal, State and Local levels. Medical Facets have been incorporated into all plans, and our Committee has cooperated in this work.

The Committee has studied and aided in formulation of the evacuation plans for the metropolitan areas of Oklahoma City and Tulsa.

Members of the committee have participated in Regional Civil Defense Conferences of the A.M.A., and our Society has been honored by being invited

to speak before the National Council on Civil Defense to be held in conjunction with the National Meeting in San Francisco.

Programs started include cataloging of all hospital staffs in the State; institution of all hospital staffs in the State; institution of the MEND (Medical Education for National Defense), into the University of Oklahoma School of Medicine; and preparation of the 200 bed hospital unit which you saw parked outside the building.

Further programs contemplated are: 1) Continued education and training, mostly individual and small groups at this time. 2) Legislation aimed at giving authority to put emergency medical care into operation. 3) Coordination of the medical effort with other facets of civil defense, with the ancillary medical personnel, and with the military, and 4) Advocating personal preparedness of the part of all physicians.

Respectfully submitted,

Wm. H. Reiff, M.D., Chairman

Doctor Gallaher stated that the chair felt no action to be required on this report.

Doctor Gallaher announced that the next order of business would be a report from the Committee on Medical Care for the Recipients of Public Welfare Assistance. The Speaker introduced Doctor Mark R. Johnson, Chairman, Oklahoma City.

Report of the Committee on Medical Care for Recipients of Public Welfare Assistance

Report period from July 29, 1957 to May 5, 1958

Composition of the committee: Mark R. Johnson, M.D., Oklahoma City, Chairman; C. M. Bielstein, M.D., Oklahoma City, Member and Member-Representative of the physician's section of the Professional Advisory Committee of the Department of Public Welfare; Thomas E. Rhea, M.D., Idabel, Member; A. T. Baker, M.D., Durant, Member; Hugh Perry, M.D., Tulsa, Member; Robert L. Loftin, M.D., Broken Bow, Member; Howard A. Bennett, M.D., Tulsa, Member; Henry T. Russell, M.D., Enid, Member.

Formal committee meetings were held on the following dates: September 29, 1957; October 27, 1957; December 11, 1957; February 23, 1958; April 20, 1958. Committee was duly constituted and a quorum was present at each meeting. The elected chairman presided at each meeting. Copies of the approved minutes of each meeting are attached.

At the beginning of the report period the Oklahoma State Medical Association through its house of delegates had given its support to member participation in state-federal medical care program based on Public Law 880, for recipients of public welfare assistance which had the following features and restrictions:

1. Recipients will have free choice of physicians.
2. All physicians will maintain the right to accept or reject Welfare patients.
3. The program should be an in-patient and hospital care program in licensed general hospitals with admissions to be on a life in danger admission policy (the definition for this, the patient would have to be

in a medical condition that would be considered to the extent that life was actually in danger).

4. Authorization for admission would be for a period of seven days with re-authorization for another seven days possible under certain circumstances when life was still in danger.

5. Physicians to be paid on the basis of seventy-five percent of the Medicare fee schedule for surgery, and \$5 a day for acute non-surgical conditions with a limit of ten days on each admission.

6. The Association not enter into a written contract with the Department of Public Welfare.

7. In no instance will the obligation of the patient be discharged since this is considered as a resource program and not an indemnity program.

8. The check for payment of the physician's services will be made out to the physician and to the recipients and will require double endorsement.

9. That in instances where a welfare patient might have prepaid insurance which would reimburse the physician in an amount greater than the schedule to be paid by the Department of Public Welfare, it shall be left to the physician as to which method of payment he will elect to accept, but in no instance accepting both.

The above program has been continued with the following exceptions:

In addition to life-in-danger admission restrictions sight-in-danger has also been included. This change was recommended by several of the association's ophthalmologists and submitted to this committee by Doctor T. O. Coston. It was recommended for approval by the committee at its meeting on October 27, 1957.

The authorized period for hospital care-reimbursement has been extended from 7 days to 21 days in cases where life or sight remained in danger. This extension was granted by the Department of Public Welfare without prior consultation or discussion with this committee. The committee authorized a letter of protest which was forwarded to the Department of Public Welfare through Doctor Bielstein, March 27, 1958. A copy of the protest and reply are attached.

Basic allowances for professional care have not changed; allowances for hospital care have risen to a greater percentile per diem cost. Because of many expressions of displeasure from members of the State Medical Association regarding allowance schedules prevailing in third party payment programs the committee recommended in a letter addressed to the President of the State Medical Association, March 15, 1958, the appointment of a special committee "to establish a more equitable and more appropriate schedule of allowances."

Checks for payment of physician services have not been made payable upon double endorsement.

Since the motion which activated this program did not spell out in specific detail the child-care portion subsequent action taken by the House of Delegates permitted the inclusion of children in the program with the following provisions: "That the members of

the Oklahoma State Medical Association will continue to support on a voluntary basis the medical program of the Crippled Children's Commission if there is no alteration of this program in this program of the care of the crippled child by the commission." This issue has been a matter of much discussion and debate but the Association's official stand has not been altered. Thus the program does not include remuneration for professional care of children either in the Crippled Children's Commission program or in the Aid to Dependent Children program. The Council's recommendation to this effect was accepted by the Oklahoma Public Welfare Commission in regular session on April 15, 1958, and the commission directed the department to advise the medical profession that physicians services for these children will no longer be compensable from the medical care fund when the service was initiated on or after April 15, 1958. Claims which were received for services initiated prior to that date, however, were paid. The function, structure and authority of the Crippled Children's Commission has remained unmodified.

A further change in the scope of the program recommended for approval by the committee pertains to the inclusion of the ineligible spouses of recipients of Public Welfare Assistance funds. On January 2, 1958, Doctor Bielstein notified the committee that there are approximately 8,000 spouses whose age or other qualifications did not allow them eligibility under the present rules by which the medical care program was governed. They had been excluded in the beginning of the program by the Public Welfare Commission because of lack of experience with funds. It is the consensus of the committee that these individuals should be included in the authorized medical care program.

No other alterations have been recommended for approval although several have been discussed and in some cases action is pending. These include allowances for x-ray and isotope therapy, pathologists and consultant's services, retraining and rehabilitation programs and physician-supervised nursing home programs. At the present time the committee does not recommend major extensions of the program to embrace any of these services.

The physician's manual which was distributed by the Department of Public Welfare a few short days after the official sanction of the program, was found to contain erroneous and misleading information. The committee was instrumental in bringing this to the attention of the Professional Advisory Committee and recommended the preparation and distribution of a corrected manual. This was to have been accomplished by March 15, 1958, but as yet no revised manual has been distributed.

Although as originally planned the Professional Advisory Committee serving the Department of Public Welfare was to include three physician members, only two were seated from July of 1957 until February of 1958. These members were Frank A. Austin, M.D., Lawton and C. M. Bielstein, M.D., Oklahoma City. Following a specific request by Doctor Burton

and advised by the committee, a third member was selected Robert L. Loftin, M.D., Broken Bow, who has served since February of 1958.

During its tenure the committee has been aware of changing attitudes toward this program on behalf of physicians in other states as well as our own state. It seems appropriate to point out that the program in New Mexico has bankrupted itself; that the program in California has jeopardized the unity of its state medical association; and that our own program in the state of Oklahoma is spawning some concerted hostility. It would seem that the evils of this program are more readily apparent than its benefits. It has not met with any expressed acclaim on the part of its benefactors or its engineers. Since the only changes that could possibly have been brought about by this program are of a fiscal nature, the committee felt that certain statistical information should be made available to the members of the Oklahoma State Medical Association. To this end a letter of request was forwarded March 27, 1958, outlining the information desired. A copy of this letter is attached together with a reply from the Department of Public Welfare. In summary, some 14,500 physicians' claims were paid from July 1, 1957 through April 18, 1958 for a total disbursement of 794,136.56. During the same period of time some 12,800 hospital claims were paid for a total disbursement of \$1,911,474.03. Unfortunately the most significant figures of all are not available; the actual value of the professional and hospital care rendered for this amount of money. It is through such misrepresentations that the American Taxpayer can be duped into accepting a socialized medicine program with "little or no tax burden."

Since the committee may represent some of the best informed opinion concerning the significance and potentials of such a medical care program it may serve the members of the Oklahoma State Medical Association to express them. To-wit:

It is apparent that there are four definite spheres of reaction to the program. The first is that of the physician as an individual and as a member of a hospital staff. The second sphere of reaction is strictly political. The third is the involved public or more specifically those persons and relatives of those persons included in the program and lastly, the uninvolved public who after all will provide the greatest number of tax dollars without receiving any direct benefit. As the spheres of reaction are identified the potentials of such a program are readily visualized. The program is a trap. Participants, contributors and benefactors can no longer debate the issue of stepping into it but now must learn to live with it as graciously as possible. It is also a malignancy which has not one but two centers of growth; one in the local community and another in Washington. Like all other malignancies, its mortal threat is its growth potential and it is therefore our problem to restrict its growth, to stop it as quickly and effectively as possible. It will grow not because of any socialistic altruism but because of the nourishment provided it by the pressured vote. Physicians did not initiate

the program and unfortunately physicians cannot stop it.

In Chicago, Mr. Roney stated "A public welfare director makes a better plea to legislators on behalf of doctors than doctors can themselves." This and other more direct criticism serves to remind us that we cannot and must not attempt to take a negative or critical stand in our attitude toward this program. We must be wise enough, ingenious enough, and patient enough to cause the voting American Taxpayer to demand its limitation. If we find ourselves commiserating with one another for having entered into the program at all, we can easily imagine the extent of our wounds if we should rise up in short-sighted, self-righteous rebellion.

Whatever our decisions are and whatever course we choose to take we must at all expense retain our professional unity. It serves our best interests to think and speak as individuals but we must act with direction and solid unification.

In the matter at hand the committee is of the unanimous opinion that we must support a program which will give expression to our individual views and opinions. We must institute a program that is clearly defined and receives the full and sincere support of each individual member of the State Medical Association. We must design a workable plan for the majority opinion; we must also provide a means of effective expression for the minority opinion. We must by our actions suppress rank and pettiness and negativism in all our official expressions. Our program must have flexibility. It must embrace fixed opinions and provide latitude for changing opinions. It must be a program where we as physicians maintain maximum effective control over all its ramifications.

Therefore although there was little general agreement among the members of the committee ten months ago, it now recommends and urges the approval and support of the Oklahoma State Medical Association in the following medical care program for recipients of public welfare funds: recommendations will be prepared as a second separate document.

The Recommendations of the Committee on Medical Care for Recipients of Public Welfare Assistance

The committee recommends that the Oklahoma State Medical Association continue its support of a statewide welfare medical care program as authorized by public law 880. This program should have the following scope and design:

Recipients eligible for inclusion in the adult medical program will be those suffering with a life-in-danger or sight-in-danger illness and in need of hospital and professional medical care as a result of such illness. The determination of such status is to be left entirely to the physician who bears the primary responsibility for the patient's care. Until further experience is obtained, the program should continue strictly as an "in hospital" care program. Persons eligible for participation in the adult program will be those who are receiving Department of Public Welfare funds because of age, blindness or disability only. The otherwise ineligible spouses of such re-

cipients will be considered as eligible recipients in the medical care program. (Since such an interpretation is subject to abuse through carelessness and other factors it will be necessary in some situations for the responsible physicians to define in more detail the circumstances surrounding specific cases. The committee wishes to point out that while there may have been abuses in this program during the past year the majority of cases were those where inadequate explanation was provided the Professional Advisory Committee in order to certify the life or sight-in-danger. It is felt to be of the utmost importance to emphasize that great caution should be exercised at all times to prevent the development of a "review authority" which would subject the program and the entire profession to all manner of evils and corruption. It is vitally important that the authority vested in the State Medical Association as a whole never be lent in part or parcel to any one individual or group of individuals who serve in the administration of this program.)

It is recommended that hospital participation in this program be continued. However, the committee suggests certain modifications be made in the present schedule of allowances:

1. Upon admission of the adult recipient whose life or sight is in danger the initial hospital claim will be executed for a maximum of fourteen days essential hospital care. If on the fourteenth day the physician who bears the responsibility for the care of the patient is of the opinion that his life or sight remains in danger the hospital will upon approval of the physician submit a request for extension of hospital and professional care allowances. The limits of these allowances may vary from time to time depending upon the demands and resources of the program but will at all times embrace equal periods of time for professional and hospital care.

2. Since it is a recognized fact that hospitals are merely elaborate and complex tools of the physician it is recommended that no changes in the hospital care part of the program be initiated by any persons other than physician members of the Oklahoma State Medical Association. If any hospital authority other than a physician feels it wise or beneficial to activate changes in the program they should be advised to confer with appropriate delegations of the Oklahoma State Medical Association and the Department of Public Welfare. In such conference and only in such conference should alterations be considered. Again it should be clearly pointed out to the members of the Professional Advisory Committee and the State Department of Public Welfare that any decisions made without benefit of such conference will constitute a breach of agreement and jeopardize the State Medical Association's support of the program.

3. That the administrator of the hospital of admission notify in writing the physicians who hold primary responsibility for the care of the patient that he has been admitted under the welfare medical care program and that a hospital care allowance claim is being filed. That a copy of this written notification accompany the hospital's claims executed

in behalf of that patient. That notification should bear the name and address of the responsible physician and will serve to notify the Department of Public Welfare that claims for professional care are duly executed by such physician.

4. That all hospitals participating in the program prepare and submit to the Department of Public Welfare an outline of the methods each uses in the application of this program. Such an outline should describe in detail the procedures involved in receiving patients, admitting patients, and providing for professional care. If the physicians who care for the patients after admission are not the same physicians who admit the patients this will be defined and explained.

The committee recommends that the care of children in this medical care program be supervised by physicians through the Crippled Children's Commission. Eligibility for care will be identical to and the same as that eligibility now in effect under the Crippled Children's Program. Requirements for hospitalization will also be identical. In keeping with the traditional spirit of physician participation in the Crippled Children's Commission program, claims for professional care will not be authorized or honored. All initial hospital care claims will be submitted to and reviewed by the Crippled Children's Commission which will in certain and selected cases pass claims on to the Department of Public Welfare for final processing. Thus the child care program will not be based on a life-in-danger or sight-in-danger situation. Only children will be considered eligible in this program which specifically will exclude guardians, parents and others who may be receiving state funds through the ADC program. (The committee wishes to point out that during its study of some of the agencies involved in the medical care program the impression was gained that the Crippled Children's Commission as currently established and operating in the state of Oklahoma is in need of some modernization and reorganization. The committee would urge and whole-heartedly endorse an energetic program designed to familiarize the members of the Oklahoma State Medical Association with the organization and operation of the Crippled Children's Commission.)

The Committee recommends that physician participation in this program remain purely voluntary but that three distinct plans be made available. The plans are:

Plan A. The submission of individual claims by physicians and their personal receipt of allowances for services rendered. In this situation payment will be made to the responsible physician in his name by the Department of Public Welfare and be considered as partial reimbursement for his services.

Plan B. Physicians who do not wish to receive allowances may at their discretion decide not to execute a claim. Thus except in the referral of certain patients to hospitals they would not in any manner actively participate in the program.

Plan C. Will enable physicians to execute an allowance claims for services rendered and designate a third party recipient. Specifically in this regard

the committee's recommendation is this: That the Oklahoma State Medical Association be authorized by vote of its membership to serve as vendor of professional medical care. In such capacity it would be authorized to receive payments from a state agency for such care. Physician participation in this portion of the program would be possible by executing an individual contract with the Oklahoma State Medical Association which would authorize the association to receive allowances earned by the signing physician through his care of welfare fund recipients. Upon the provision of adequate controls and statistical facilities, the Department of Public Welfare could within law and reason make allowance payments to and in the name of the Oklahoma State Medical Association. The Association would be directed to hold all such funds in a separate non-appropriated reserve to be disbursed upon direction of its membership.

Such a development in this program would offer physicians several distinct advantages. First it would with the greatest assurance possible represent non-taxable earnings by the physician. Also it would permit physicians to make themselves invulnerable to coercive attempts on the part of newly born charities, funds and hospital "money pools." Certainly not the least significant aspect of this plan would be the potential of the monies accumulated by the Oklahoma State Medical Association. It is not at all beyond conservative reason to believe that \$100,000 would be received each year. Through this fund a great deal of positive and popular objection to the growth of the program could be registered. The statistical machinery supported by a small portion of these funds would be a safeguard against spontaneous politically ambitious misrepresentations of the purchasing power of the socialized-medicine-dollars. The physician who vociferously objects but silently participates in the program would at least have an opportunity to express his criticism in a positive rather than a negative way. It is unnecessary to define the good that could be done with these funds. It is unnecessary to describe the extent to which public opinion could be swayed through the wise and benevolent expenditure of these funds. It is unnecessary to detail the manner in which these funds could be used to limit the real threat of this program which is its growth and expansion by appropriations in Washington and spending in Oklahoma.

These recommendations are respectfully submitted.

For the Committee:

Mark R. Johnson, M.D., Chairman

May 3, 1958

* * *

At the conclusion of the report, a discussion of said report ensued, and the following motion was made: "I move that the House of Delegates accept the report and thank the Committee for its excellent and scholarly report. However, I further move that the recommendations of the Committee be rejected and furthermore that the Oklahoma State Medical Association not participate in this program.

"And furthermore that the medical profession of Oklahoma continue to take care of the poor and indi-

gent, as they have in the past, without remuneration.

"And furthermore, that another Committee be appointed to study the problem of how better medical and hospital care may be rendered to the poor and indigent." This motion was made by Doctor Wendell E. Smith, Tulsa. The motion was duly seconded.

Doctor Glismann rose to a point of order stating he desired a ruling from the Chair concerning this motion just made, as he felt that the motion encompassed more than one motion.

The Chair ruled that the motion was a valid one, and that no objection was taken to it.

At this time Doctor C. M. Bielstein, Chairman of the Advisory Committee to the Public Welfare Department, spoke to the House concerning the work of that Committee, and briefly outlining reasons he felt the motion before the House should not be passed.

The motion was discussed by the Delegates both opposed and in favor.

A substitute motion was made by Doctor Gullatt as follows: "That this Committee be authorized to negotiate a written contract with the Department of Public Welfare and submit a copy to each County Society for approval and this contract to become effective on approval by two-thirds of the Counties." The motion was seconded.

Following further discussion, the Chair called for a vote on the substitute motion. The substitute motion was defeated. Doctor Gallaher then called for a vote on the original motion, which motion was also defeated.

It was then moved by Doctor Henry Russell that the House of Delegates approve and accept the Committee report, including the Committee recommendations. This motion was duly seconded.

Following further discussion, the motion was amended by Doctor Ross to read: "The report be approved and accepted with the exception of plan C contained in the Committee report." This amendment to the motion was seconded and upon being put to vote carried.

A vote was then called for on the original motion by Doctor Russell. This motion carried.

Following this order of business, Doctor Gallaher called on Doctor R. Q. Goodwin, Oklahoma City, Secretary of the Grievance Committee for a report from that Committee.

Report of the Grievance Committee

The Grievance Committee of the Association has held four meetings this year. During this time twelve cases have been considered, with eleven being closed and one case still pending.

In the consideration of these cases, three physicians have appeared before the Committee, and one aggrieved patient.

The twelve cases have been evenly divided as to cause of origination. In these twelve instances there have been two basic reasons for complaint: fees and the quality of care.

It is redundant to comment that there would be

little, if any, need for this Committee if physicians would at all times maintain a close and human physician-patient relationship.

Respectfully submitted,

The Grievance Committee: Alfred R. Sugg, M.D., Ada, Chairman; R. Q. Goodwin, M.D., Oklahoma City, Secretary; Bruce R. Hinson, M.D., Enid; H. M. McClure, M.D., Chickasha, and John E. McDonald, M.D., Tulsa.

Doctor Gallaher advised that no action on this report was required.

This concluded the reports of the Committees.

The next order of business was that introduction of Resolutions, the Chair announced. Resolutions to be introduced by title only at this time, and acted upon in the closing session, following the report of the House Committee on Resolutions. Doctor Gallaher further announced that Resolutions could also originate in the Resolutions Committee.

A Resolution concerning a Blue Shield Liaison Committee being appointed was introduced by Doctor Walter Larrabee of Tulsa.

A Resolution with regard to the Public Welfare Department was introduced by Doctor Enos of El Reno.

Doctor Gallaher advised that all interested members may meet with the Resolutions Committee in Room 531 at the Skirvin Hotel.

Doctor Gallaher advised that the last order of business in this Session of the House would be the reading of the Necrology Report. Doctor Gallaher turned the Chair to Doctor Carlock for the presentation of the Necrology Report.

Doctor Carlock requested that the Delegates stand during the reading of the Necrology Report.

Necrology Report

Since the last Necrology Report in May, 1957, the Almighty in his infinite wisdom has called from our midst forty-one of our beloved friends and co-workers. While we bow in sorrow to the will of the Almighty, we are appreciative of these wonderful men-physicians, scientists, teachers and friends, and their far reaching influences which will continue to inspire us to carry on their duties to humanity.

THEREFORE BE IT RESOLVED, That the House of Delegates to the Oklahoma State Medical Association recognize the demise of these former fellow physicians and instruct the Secretary to inscribe with honor and regret the following names upon the record of the Association:

Otis Guy Bacon, M.D., July , 1958.

Rex George Bolend, M.D., March 3, 1958.

Udonna Clifton Boon, M.D., February 8, 1958.

Jacob Peter Braun, M.D., October 14, 1957.

Samuel Lee Burns, M.D., July 5, 1957.

Claude Malcom Cochran, M.D., March 18, 1958.

Andrew Jackson Coley, M.D., October 16, 1957.

James Thomas Colwick, Sr., M.D., December 15, 1957.

George Monroe Davis, M.D., October 7, 1957.

Fred Akin Glass, M.D., October 27, 1957.
 Otto Ishmael Green, M.D., April 4, 1958.
 John Henry Harvey, M.D., October 11, 1957.
 Onis George Hazel, M.D., December 8, 1957.
 Sidney Jurry Truley Hines, M.D., August 26, 1957.
 Clarence Calvin Hoke, M.D., August 14, 1957.
 Porter W. Hopkins, M.D., August 14, 1957.
 Berthe Margolin, M.D., February 1, 1958.
 Thomas James Lynch, M.D., October 29, 1957.
 Philip Luther McClure, M.D., January 1, 1958.
 Thomas McElroy, M.D., October 21, 1957.
 Charles Morris Ming, M.D., May 27, 1957.
 David A. Myers, M.D., September 26, 1957.
 Patrick Sarsfield Nagle, M.D., May 8, 1957.
 Robert Leonard Noell, M.D., December 11, 1957.
 Derric Choate Parmenter, M.D., March 11, 1958.
 Carl Puckett, M.D., September 27, 1957.
 Claude Lee Reeves, M.D., January 13, 1958.
 Stephen Woodson Reynolds, M.D., February 3, 1958.

Robert Lee Rhodes, M.D., August 31, 1957.
 Eugene Edgar Rice, M.D., September 28, 1957.
 David Phillip Richardson, M.D., July 13, 1957.
 Arthur Strohm Risser, M.D., July 17, 1957.
 John Augustus Roddy, M.D., December 31, 1957.
 Elijah Stover Sullivan, M.D., February 4, 1958.
 Barton Hiram Watkins, M.D., August 23, 1957.
 John Hutchings White, M.D., November 16, 1957.
 Byron Edward Williams, M.D., December 24, 1957.
 Clyde Oscar Williams, M.D., September 25, 1957.
 Gordon Darnell Williams, M.D., April 4, 1958.
 Edward Kitchell Wicher, M.D., September 17, 1957.
 Frank Lonzo Wormington, M.D., December 24, 1957.

* * *

Following the reading of the Necrology Report, the Speaker announced the House of Delegates of the Oklahoma State Medical Association, Opening Session, would stand at recess to reconvene at 7:30 p.m.

Reported by Bobbie Iselin

Constitution and By-Laws

CONSTITUTION

ARTICLE I.

The name of this organization is the OKLAHOMA STATE MEDICAL ASSOCIATION, INCORPORATED.

ARTICLE II.

Purpose of the Association

This Association is formed to promote the science and art of medicine.

ARTICLE III.

Component Societies

The Association shall charter component county or district societies.

ARTICLE IV.

Membership

The members of the component societies shall be the members of the Association. Membership in the Association is a privilege and not a right.

ARTICLE V.

House of Delegates

Section 1. The House of Delegates shall be the legislative body of the Association. It shall be composed of (1) Delegates elected by the component societies, and (2) the general officers of the Association.

Section 2. It shall meet at least once at each annual meeting. A special meeting may be called by the president, the council, or by petition to the speaker from not less than thirty delegates. Only such business as is specified in the call shall be transacted at a special meeting.

Section 3. It shall apportion the State into suitable councilor districts.

ARTICLE VI.

The Council

Section 1 The Council shall consist of two Councilors from each Councilor District, and the other general officers of the Association.

Section 2 The Council shall be the Executive and the Judicial branch of the Association.

Section 3. The council shall meet at least once during the annual meeting, and on call by the president, or by petition to the president from one-third or more of its members.

ARTICLE VII.

Meetings

The Association shall hold an annual meeting at a place designated by the House of Delegates. For good and sufficient reasons the Annual Meeting place may be changed by a three-fourths vote of the Council.

ARTICLE VIII.

General Officers

The general officers of the Association shall be the President, President-Elect, Vice-President, Secretary-treasurer, Speaker and Vice-Speaker of the House of Delegates, the Councilors, the Delegates and Alternate Delegates to the American Medical Association, the Editor of the Journal, and the most recent two past presidents of the Association.

Section 2 All general officers shall be elected by the House of Delegates at its Annual Meeting, except the Editor of the Journal, and may be removed from office for cause.

Section 3. The President-Elect and the Vice President shall be elected for a term of one year. The Secretary-Treasurer, Speaker and Vice-Speaker of the House of Delegates shall be elected for a

term of two years. The councilors shall be elected for a term of three years, the terms being so arranged that approximately one-third shall be elected each year. At the expiration of his term, the President-elect shall become President for a term of one year.

Section 4. The general officers, except Delegates and Alternate Delegates to the American Medical Association who will not assume office until January 1, shall assume the duties of their offices at the close of the Annual meeting at which they are elected, and shall serve until their successors have been elected and installed.

Section 5. Vacancies in any general office shall be filled by appointment by the President, with the approval of the Council, effective until the next annual meeting, at which time the House of Delegates shall elect a successor to complete the unexpired term, except in the case of the President, Speaker of the House of Delegates or Delegates to the American Medical Association, where the Vice-President, Vice-Speaker or Alternate Delegates to the American Medical Association shall automatically fill the vacancy.

ARTICLE IX.

Finances

The House of Delegates shall levy such dues and assessments as it considers proper for the conduct of the business of the Association. The Council, at least annually, shall submit a budget for future operations of the Association to the House of Delegates, and the House of Delegates shall make such appropriation of funds as it considers proper.

ARTICLE X

Referendum

The House of Delegates may submit any question to a vote of the members of the Association, provided that two-thirds of the Delegates present at the meeting vote in favor of such referendum. The House of Delegates shall designate a committee to conduct the referendum and publish the result.

ARTICLE XI.

Seal

The House of Delegates shall adopt an official seal for the Association.

ARTICLE XII.

Ethics

The principles of medical ethics of the American Medical Association currently in force shall be those of this Association, and shall govern the conduct of its members.

ARTICLE XIII.

Amendments

The House of Delegates may amend this constitution or any part thereof by the affirmative vote of two-thirds of the Delegates present at any annual meeting, provided that notice of the proposed amendment shall have been given to each component society at least 60 days before such

meeting. No amendment shall become effective until the close of the annual meeting at which it is adopted.

ARTICLE XIV

This Constitution supercedes and repeals all previous Constitutions. Any By-Law, Resolution, or enactment in conflict herewith is declared to be of no effect.

BY-LAWS

CHAPTER I.

Membership

Section 1.00 Basic Requirements. Members of component societies shall be members of this Association. Membership in a component society shall be granted only to citizens of the United States, and doctors of medicine, who shall have received that degree from an educational institution approved by the Council, licensed by the Oklahoma State Board of Medical Examiners, whose Federal narcotics permit has not been revoked or surrendered, nor the issuance of such permit denied, because of proved violation of State or Federal laws; provided, however, that any doctor of medicine whose narcotics permit has been revoked or surrendered or the issuance thereof, denied, may apply for membership when eligibility for reissuance of such permit has existed for a year or more, immediately prior to the time of such application.

1.01 Exceptions.

1.011 Federal Employees. A doctor of medicine employed by any branch of the Federal Government, not licensed to practice in Oklahoma, who meets all other qualifications for membership in a component society, may be elected to membership but may not hold office.

1.012 Associate Members. A person who is not a doctor of medicine may be elected to Associate Membership in a component society and in this Association when his contributions to medicine justify that honor. Petition for such election may originate in a component society, approved by the Council, or in the Council, and be approved by the House of Delegates. Such membership shall terminate when the member removes his residence from Oklahoma.

Section 2.00 Rights. On or before March 31 of each calendar year, the secretaries of the component societies shall certify to the Association the names of all members of their respective societies, accompanied by annual dues and assessments for that year. Such certification shall entitle the members to all rights, benefits, and privileges of the Association, and active membership for that year.

Section 3.00 New Members.

3.01 Application Clearance. All secretaries of component Societies shall submit a copy of all applications for membership to the Executive Office of the Association before final action on the application is taken. Such applications shall be submitted to the Bureau of Investigation of the American Medical Association. The report of the Bureau

of Investigation and all information in the Executive Office shall, in turn, be forwarded to the component society for the information of the Board of Censors. Accomplishment of this procedure is a prerequisite to membership and election may not be effected without it.

Section 4.00 *Classifications.*

4.01 *Active Members.* Members of component societies, whose dues and assessments are fully paid, shall be active members.

4.02 *Honorary Life Members.* Any physician, a member of this Association, who by reason of ill health or age shall retire from the active practice of medicine, or who has engaged in the active practice of medicine for fifty years or more, and whose service to humanity and his profession has been conducted with dignity and honor may be placed on the honorary life membership roll. Eligibility for such consideration is limited to those physicians who have been members of this Association not less than five years immediately preceeding his application, and whose petition for such membership is initiated by a component society, and approved by the Council prior to that annual meeting.

4.021 *Approval by the House of Delegates.* The approval of the House of Delegates shall place such members on the Honorary Life Membership roll.

4.022 *Right and Privilege.* Such members shall be counted in the membership of their component society, but may not hold office in the Association and shall not be required to pay dues or assessments.

4.03 *Junior Members.* Physicians serving as full time interns or residents may become Junior Members of component societies and of this Association. No dues shall be required of such members. They shall be entitled to all the privileges of membership except voting and holding office. Such members shall not be counted in the number of members of the component society.

4.04 *Special Service Members.* Any physician who is serving with the armed forces of the United States, licensed to practice in Oklahoma, and who has not previously been a member of a component society, may be recognized as a Special Service Member of the Association; provided that he shall have been elected to such category of membership by a component society, and such election shall have been certified to the Association. Such members shall have all the rights and privileges of active members except voting and holding office. No dues shall be assessed such member until the month following his discharge from the armed forces, at which time he shall pay dues prorated for the balance of the year. Membership in this category shall lapse at the end of the calendar year in which the discharge is dated.

Section 5.00 *Termination of Membership.*

5.01 *Membership may be revoked for cause.*

5.02 A member who has been suspended or expelled from a component society, or who has failed to pay dues, is not a member in good standing, even if an appeal from the decision of the County Society is pending.

5.03 *Narcotic Law Violation.* Any member

whose Federal narcotic permit has been revoked or surrendered because of proved violation of law, shall cease to be a member of his component society and the Association as of the effective date of such revocation or surrender.

5.04 *Honorary Life and Associate Membership.* The House of Delegates may revoke any honorary-life or associate membership, by a two-thirds vote of the members present, for any breach of ethics or conduct unbecoming the honor of such membership.

Section 6.00 *Regaining Membership.*

6.01 *After Suspension* - A member suspended for nonpayment of dues may be reinstated upon full payment for that year but may not vote or hold office until the following year. A member suspended by action of his component society, or by action of the Association, for a stated period of time may be reinstated at the end of that period upon full payment of dues for the year in which the suspension ends.

6.02 *After Termination* - A member whose membership has been terminated for nonpayment of dues may apply for new membership after the first of the succeeding year. Such applications shall be processed according to the provisions for new members. A member whose membership has been revoked by action of the component society or action of the Association may not reapply for membership until at least one full year has elapsed after final action was taken on the revocation.

CHAPTER II.

Annual Meeting

Section 1.00 *Time* The Annual Meeting shall be held prior to the Annual Meeting of the American Medical Association.

1.01 The time shall be determined by a Committee composed of the President, President-Elect and the Secretary-Treasurer of the Association.

Section 2:00 *General Meetings.* General Meetings shall be open to all registered members and invitees of the Association.

Section 3.00 *Scientific Assembly.* The Scientific Assembly shall meet in such general and section meetings as specified by the Committee on Scientific Work.

Section 4.00 *Papers.* The Committee on Scientific Work shall select papers and prescribe conditions of presentation.

4.01 *Property in Papers.* All papers read before the Association shall become its property, and shall be deposited with the Association, and all rights of publication thereof are reserved by the Association. If a paper is not to be published in the *Journal*, the Editorial Board may release the paper to the Author. The Committee on Scientific Work may waive this property right in respect of papers and addresses delivered by invited guests.

CHAPTER III.

House of Delegates

Section 1.00 *Representation.* One Delegate and one alternate delegate shall be elected for each 25 regular and honorary-life members, or part there-

of, of a component society.

1.01 *County Representation.* In counties where no county society exists, but in which 5 or more, and less than 25, members of the Association reside, a delegate and alternate shall be elected to represent the County; provided, however, that members so represented shall not be counted as members of their component societies in determining the latter's representation.

1.02 *Determination of Membership.* Membership in a component society or county shall be determined by the records of the Association 30 days prior to the convening dates of the next annual meeting.

Section 2.00 *Assumption of Office.* Delegates and alternates assume office 30 days prior to the convening date of the annual meeting next following their election.

Section 3.00 *Meetings and Attendance.*

3.01 *Annual Meeting.* The House of Delegates shall meet at the time and place of the annual meeting.

3.02 *Special Meeting.* Special meetings shall be held as provided by the Constitution.

3.03 *Quorum.* A majority of the certified and qualified delegates shall constitute a quorum.

3.04 *Attendance.* Any registered member of the Association may attend a meeting of the House of Delegates, but only members of the House of Delegates and Invitees shall have the privilege of the floor.

3.05 *Executive Session.* An executive session may be called by a majority vote of the house, during which only qualified members of the Association shall be present.

Section 4.00 *Reference Committees.*

The Speaker shall appoint Reference Committees from the membership of the House of Delegates, which Committees shall act to expedite the business of the Annual Session.

Section 5.00 *Delegates to the American Medical Association.*

The House of Delegates shall elect delegates and alternate delegates to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body. They shall be elected for a term of two years, beginning January 1 of the year following election. Such delegates or alternate delegates shall attend all meetings of the American Medical Association. If a delegate or alternate delegate dies, resigns, or fails to qualify, the president with the approval of the Council, may appoint a delegate or alternate delegate to serve until the next meeting of the House of Delegates of this Association, at which time a successor shall be elected to fill the unexpired term.

Section 6.00 *Component Societies.*

6.01 The House of Delegates may authorize the issuance of Charters to county societies or districts societies which shall be component societies of the Association.

6.02 The House of Delegates may revoke the charter of a component society for cause.

Section 7.00 *Finance*

7.01 *Budget.* The House of Delegates shall consider and act upon the budget submitted by the Council.

7.02 The House of Delegates shall assess Association dues, and stipulate the time and method of payment.

7.03 The House of Delegates shall have the power to levy special assessments.

7.04 The House of Delegates may accept contributions or donations for special or general purposes.

Section 8.00 *Order of Business*

The following shall be the order of business of the annual meetings of the House of Delegates.

8.01 Opening Meeting.

8.02 Call to Order.

8.03 Report of the Credentials Committee, and determination of the presence of a quorum.

8.04 Consideration of the minutes of previous meeting.

8.05 Nomination of Officers.

8.06 Appointment of Reference Committees.

8.07 Reports of Officers and Council.

8.08 Reports of Standing Committees.

8.09 Reports of Special Committees.

8.10 Consideration of reports; levying of dues and/or assessments.

8.11 Presentation of Amendments to Constitution and By-Laws.

8.12 Submission of Invitations for Next Annual Meetings.

8.13 Unfinished Business.

8.14 Miscellaneous and New Business.

8.15 Recess.

8.16 FINAL MEETING

8.17 Roll Call.

8.18 Consideration of Unfinished Business of previous meeting.

8.19 Report of Reference Committees.

8.20 Miscellaneous and New Business.

8.21 Final consideration of Amendments to constitution and By-Laws.

8.22 Election of Officers.

8.23 Installation of Officers.

8.24 Unfinished Business.

8.25 Adjournment.

8.26 The Order of Business may be modified by the House of Delegates.

Section 9.00 *Memorials and Resolutions.*

9.01 All memorials and resolutions shall be approved by the House of Delegates in the name of the Association.

9.02 When the House of Delegates is not meeting, resolutions may be issued by the Council in the name of the Association.

9.03 *Initiation.* A memorial or resolution may be initiated by a component society, or any member of the Association, and must be signed by the Secretary of the component society or member.

9.04 *Filing.* All memorials and resolutions to be considered by the House of Delegates must be filed with the Executive Office of the Association at least 30 days prior to the meeting at which it is to

be considered. The Council may initiate, or may recommend to the House of Delegates a memorial or resolution from a component society, waiving the requirement for prior filing.

9.05 *Certificates of Accomplishment.* Accomplishments in the field of medicine may be recognized by a Certificate of Accomplishment. Such award shall be initiated by a component society, approved by the Council prior to the annual meeting, and voted by the House of Delegates.

CHAPTER IV.

The Council

Section 1.00 *Apportionment.* The State of Oklahoma is divided into fourteen (14) Councilor Districts composed of the following Counties:

- District No. 1. Craig, Delaware, Mayes, Nowata, Ottawa, Rogers, Washington.
- District No. 2. Kay, Noble, Osage, Payne, Pawnee.
- District No. 3. Garfield, Grant, Kingfisher, Logan.
- District No. 4. Alfalfa, Beaver, Cimarron, Ellis, Harper, Major, Texas, Woods, Woodward.
- District No. 5. Beckham, Blaine, Canadian, Custer, Dewey, Roger Mills.
- District No. 6. Oklahoma.
- District No. 7. Cleveland, Creek, Lincoln, Okfuskee, Pottawatomie, Seminole, McClain.
- District No. 8. Tulsa.
- District No. 9. Adair, Cherokee, McIntosh, Muskogee, Okmulgee, Sequoyah, Wagoner.
- District No. 10. Haskell, Hughes, Latimer, LeFlore, Pittsburg.
- District No. 11. Atoka, Bryan, Choctaw, Coal, McCurtain, Pushmataha.
- District No. 12. Carter, Garvin, Johnston, Love, Marshall, Murray, Pontotoc.
- District No. 13. Caddo, Comanche, Cotton, Grady, Jefferson, Stephens.
- District No. 14. Greer, Harmon, Jackson, Kiowa, Tillman, Washita.

Section 1.01 *Change of Districts.* The House of Delegates may revise the composition of Councilor Districts. Such revision shall require a two-thirds majority of the Delegates present.

Section 2.00 *Term of Councilors.* Councilors shall be elected for a term of three years and until their successors are elected and qualify.

2.01 No Councilor shall be elected to more than three successive terms.

Section 3.00 *Meetings.* The Council shall meet as provided by the Constitution. One meeting shall be held immediately prior to the Annual Meeting.

3.01 *Presiding Officer.* The President of the Association shall be the presiding officer of the Council. In his absence, the following officers in succession shall assume such duty: Vice-President, Speaker, Vice-Speaker, and President-Elect.

Section 4.00 *Duties of the Council.*

4.01 *Annual Report.* The Council shall make an annual report to the House of Delegates. This

shall be presented by the presiding officer of the Council.

4.02 *Interim Legislation.* The Council shall exercise the Powers of the House of Delegates when the latter is not meeting, provided, however, that the Council shall take no action contrary to any general policy prescribed by the House of Delegates.

4.03 *Judicial Power.* The Judicial powers of the Association shall be vested in the Council, whose decision shall be final, except in those matters involving jurisdiction of the Council or other appropriate body of the American Medical Association, which by right the member, or component society, may appeal to the American Medical Association. In such an event finality of the appeal shall be suspended until a decision has been received from the American Medical Association.

4.031 The Council shall have original jurisdiction in:

4.0311 All controversies arising under the Constitution and By-Laws of this Association to which this Association is a party;

4.0312 Controversies between two or more component societies; between a component society and a member of another component society.

4.0313 All matters or controversies between a component society and one or more of its members where a showing is made that an independent and objective forum cannot be obtained or has not been obtained before or in the component society, which showing shall be initiated at the request of a member of the Council and approved by a majority vote of the Councilors present at the meeting at which such request is presented.

4.032 The Council shall have appellate jurisdiction in all cases arising between a component society and one or more of its members, which procedure may be instituted by an appeal of one or more members of such society, aggrieved by an order of discipline, suspension or expulsion entered against him, or them, by the component society.

4.04 *Miscellaneous.* The Council shall endeavor to promote friendly relations among all members of the Association, encourage postgraduate study, research, and education, supervise a program of public relations, and shall keep informed and advise component societies on matters of professional and public health legislation.

4.05 *Amalgamation of Component Societies.* The Council may approve the amalgamation of two or more component societies, and may approve separations of such societies upon request. Final authorization shall be by action of the House of Delegates.

Section 5.00 *Duties of Councilors.* The Councilors shall do all things indicated for the promotion of the welfare of the medical profession and the Association in their respective Councilor Districts. They may award fifty year pins to members who have served the public as members of this honorable profession for fifty years since graduating from Medical School upon requested action by component societies. They shall meet with, advise, and counsel with the component societies upon request,

or of their own motion. They shall report their activities annually to the House of Delegates, or in lieu thereof, such report may be published in the *Journal*.

Section 6.00 *Issuance of Charters.* A medical society desiring to become a component society of the Association, shall file a request for a charter, together with a copy of its constitution and by-laws with the Association.

Upon approval of the Council, and authorization by the House of Delegates a charter, signed by the President, and Secretary-Treasurer of the Association shall be issued.

6.01 *Revocation of Charters.* The Council may recommend the revocation of a charter for cause, to the House of Delegates.

Section 7.00 *Employees.* The Council shall select or approve all employees of the Association, and shall determine all conditions of employment.

7.01 *Offices.* The Council shall arrange office space for the conduct of business of the Association.

Section 8.00 *Budget and Audit.* The Council shall prepare an annual budget of expenses for the Association, and shall present it to the House of Delegates for its consideration.

8.01 *Auditing.* The Council may prescribe a method of accounting for the Association. Three members of the Council shall be appointed as a Committee on Appropriations and Auditing and this Committee shall be responsible for an annual audit of the accounts of the Association.

Section 9.00 *Approval of Exhibits.* Exhibits to be displayed at the Annual Meeting shall be authorized and approved by the Council.

Section 10.00 *Editorial Board of the Journal.* The Council shall appoint members of the Editorial Board of the *Journal*, and may revoke such appointments at will. It shall designate one member as Editor-in-Chief.

Section 11.00 The Council shall authorize the publication of a journal of the Association

Section 12.00 The Council shall adopt all rules of procedure necessary or convenient to carry out the duties herein specified.

CHAPTER V.

Election of Officers

Section 1.00 Officers, except the Editor of the *Journal*, shall be elected at the Annual Meeting.

Section 2:00 *Nomination.* Officers, except the Editor of the *Journal*, shall be nominated by a member of the House of Delegates.

Section 3.00 *Nomination of Councilors.* The Delegates from each Councilor District shall nominate Councilors for their respective districts.

Section 4.00 *Eligibility.* Any active member of the Association in good standing may be nominated for office.

Section 5.00 *Time.* Nominations shall be made during the opening session of the House of Delegates.

Section 6.00 *Election.* Officers, except the Edi-

tor of the *Journal*, shall be elected at the second meeting of the House of Delegates.

Section 7.00 *Ballot.* All elections shall be by ballot and a majority of the votes cast shall be necessary to elect. If no nominee receives a majority of the votes cast on the first ballot the nominee receiving the fewest votes shall be dropped from the list and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of the votes cast, at which time he shall be declared elected. When there is only one nominee for an office, a majority vote, without ballot, shall elect.

CHAPTER VI.

Duties of Officers

Section 1.00 The *President* shall preside at all general meetings of the Association and at all meetings of the Council. He shall be ex-officio member of all committees he appoints. He shall be the acknowledged head and representative of the medical profession of the State during his term of office.

Section 2.00 *Vice-President.* The Vice-President shall preside at all meetings in the absence of the President. In the event of the death, resignation, removal from the State, disqualification or disability of the president, the vice-president shall succeed to the presidency for the unexpired term.

Section 3.00 *President-Elect.* The President-Elect shall become President upon installation at the annual meeting following his election.

Section 4.00 *Speaker of the House of Delegates.* He shall preside at all meetings of the House of Delegates. In the absence of the vice-speaker, he may designate any member of the House to preside temporarily. In the event of vacancy in the office of President and Vice-President, he shall become acting President for the unexpired term.

Section 5.00 *Vice-Speaker of the House of Delegates.* He shall preside in the absence of the Speaker. He shall become Speaker for the unexpired term upon occurrence of a vacancy in that office.

Section 6.00 *Secretary-Treasurer.* He shall keep the minutes of all meetings of the House of Delegates and the Council. As Treasurer he shall give bond in the amount specified by the Council. He shall be custodian of all funds of the Association, and shall make, all authorized disbursements on voucher, signed by the Executive Secretary and countersigned by the President. He shall render an annual account of all receipts, expenditures, funds invested and on hand to the Council and House of Delegates, and shall open his books and records to such audit or inspection as may be ordered by the Council or House of Delegates. He shall invest reserve funds on order of the Council. When authorized by the Council, he may borrow money in the name of the Association and may pledge property of the Association as security for the re-payment thereof.

CHAPTER VII.

The Journal

Section 1.00 The official publication of the

Association shall be the JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, referred to as the *Journal*.

Section 2.00 *Publication*. The *Journal* shall be published and distributed monthly.

Section 3.00 *Management*. The Executive Secretary of the Association shall be Business Manager of the *Journal*, subject to the advice and approval of the Editorial Board and Council.

Section 4.00 *Editorial Board*.

4.01 *Members of the Editorial Board Term*. Members of the Editorial Board shall serve for a term of 3 years.

4.02 *Editorial Board Duties*. The Editorial Board shall determine the editorial policy of the *Journal*, select articles for publication, consult with the Executive Secretary on advertising and format, and perform all other acts necessary or expedient in publication of the periodical.

4.03 *Accounts*. Separate accounts shall be maintained of all transactions related to publication of the *Journal*. Such accounts shall be submitted annually for consideration by the Council.

CHAPTER VIII.

Committees

Section 1.00 *Standing Committees*. The standing committees shall be: Annual Meeting Credentials, Scientific Work and Exhibits, Constitution and By-Laws and Grievance.

Section 2.00 *Annual Meeting*. The Annual Meeting Committee shall consist of the President, President-Elect, and Secretary-Treasurer of the Association.

2.01 It shall select suitable accommodations for the annual meeting, designate such special committees as may be necessary for proper conduct of the meeting, cooperate with the Committee on Scientific Work and Exhibits in advance preparation and publication of the program for the meeting, approve all scientific exhibits, and all such other acts as are necessary and proper in the conduct of the Annual Meeting of the Association.

Section 3.00 *Grievance*. The Grievance Committee shall consist of the last five living Past Presidents of the Association.

3.01 *Duties and Procedures*.

3.011 *Investigation*. It shall investigate all complaints concerning members of the Association when such complaints are received in writing, signed by the complainant.

3.012 *Procedure*. It shall enact its own rules of procedure, provided that members complained of shall receive full notice of the complaints, and shall be given a full hearing on the substance thereof.

3.013 *Disposal of cases*. When the Committee cannot negotiate a settlement of the case because of the refusal or neglect of the Association member to comply with its recommendations, the Committee shall refer the case to the member's component society so advising the member, supplying the component society with all the information it has, and indicating its recommendation. Following such a re-

ferral, the component society shall report its findings and action back to the Committee within 30 days from date of referral. If the member, component society, or committee is dissatisfied with the final disposition of the case, it may be appealed to the Council. If the component society does not take jurisdiction of the referred case within 30 days of referral, the Committee may appeal to the Council which shall promptly hear and dispose of the matter, according to such rules of procedure as it may specify, provided, however, that the parties before the Council may be represented by Counsel, shall have at least 20 days notice of the charges preferred, and no less than ten days notice shall be given of the time and place of the hearing. Counsel for the Association may be present to assist the Council in conduct of a hearing, but shall not vote as a member of the Council.

Section 4.00 *Other Standing Committees*.

4.01 *Appointment*. All other standing committees shall consist of six members, appointed by the President and approved by the Council, for a term of three years, staggered so that not more than two members shall be appointed in any one year.

Section 5.00 *Credentials Committee*. Only members of the House of Delegates shall be members of this Committee. Vacancies shall be filled by Presidential appointment of a certified delegate to serve the unexpired term.

5.01 *Credentials*. Immediately prior to the Annual Meeting the Executive Secretary shall certify to the Committee a list of Delegates and Alternates.

5.02 *Duties*. The Committee shall determine the eligibility of the certified delegates as representatives of their component societies, certify such delegates and determine the presence of a quorum prior to the House of Delegates proceeding with the transaction of its business.

5.03 *Contests*. In the event of a contest between alleged delegates from a component society, the committee shall hear all relevant facts, adjudge who shall be delegates, and report its findings and judgment to the House of Delegates, which may be accepted, rejected or otherwise disposed of by the House of Delegates.

Section 6.00 *Committee on Scientific Work and Exhibits*.

6.01 *Duties*. It shall determine and arrange the scientific proceeding of all meetings, subject to approval by the Council. It shall issue a program at least thirty days prior to the Annual Meeting, which shall be published prior to the meeting.

Section 7.00 *Committee on Constitution and By-Laws*.

7.01 *Duties*. The committee shall consider amendments suggested by the members or component societies, and shall present them to the House of Delegates for its consideration. If the Committee refuses to present a proposed amendment to the House of Delegates, such amendment may be presented on the floor by a member of the House of Delegates.

7.02 *Meetings*. Meetings shall be held at all necessary intervals so that proposed amendments

may be considered at the first meeting of the House of Delegates.

Section 8.00 *Special Committees.* Special Committees shall consist of three or more members, appointed by the President, to serve concurrently with his term of office, and shall be appointed upon his own initiative or on the direction of the Council or House of Delegates.

CHAPTER IX.

Dues and Assessments

Section 1.00 *Dues.*

1.01 *Amount.* Dues shall be assessed annually by the House of Delegates for the succeeding calendar year.

1.02 *Levy.* Dues shall be levied per capita on the members of the Association except as specifically provided in this Constitution and By-Laws.

1.03 *Due Date.* Dues shall be due on January 1 of the year for which they are levied, and shall become delinquent if not paid to the Association before March 31 of that year.

1.04 *Collection and Remissions.* Dues shall be collected and remitted to the Association by the Component societies.

1.05 *Certification of Payment.* Certification of payment and delinquency shall be made to the Association by the Component Societies on or before March 31 of each calendar year.

1.06 *Suspension.* Delinquency in payment of dues shall automatically suspend membership in the Association.

1.07 *Forfeiture of Membership.* If dues are not paid by December 31, or if a component society has terminated a membership prior to December 31, it shall be automatically terminated.

Section 2.00 *Initiation Fees.*

2.01 *Payment.* At the time of initial membership, or reinstatement of membership which has lapsed for any reason, and initiation fee of \$35 shall be paid.

2.02 *Use of Initiation Fee.* All initiation fees shall be paid into a special fund to be used only for maintenance, repair and additions to the headquarters.

Section 3.00 *American Medical Association Dues.*

3.01 *Levy.* All active members of the Association shall pay such annual dues and/or special assessments as may be levied by the American Medical Association.

3.02 *Collection.* Such dues and/or special assessments shall be collected by the component societies, and remitted to this Association.

Section 4.00 *Half Dues.*

4.01 *Eligibility.* Employees of Federal, State, County or municipal governments, non-profit organizations, or medical schools, whose total annual income in the preceding year was less than \$5,000.00, or who has been engaged in the practice of medicine less than one year since completion of his hospital training, may, at the election of his component society, be assessed one-half the amount of regular dues.

4.02 *Apportionment.* Dues and half dues of

new members shall be apportioned by quarter years.

Section 5.00 *Undue Hardship.* Payment of dues to a component society and this Association may be excused for any given year in cases of undue hardship upon recommendation, setting forth the facts, by the component society, and approved by the Council.

Section 6.00 *Military Service Exemption.*

6.01 *Eligibility.* A member of the Association on active duty with the Armed Forces of the United States, otherwise than as a member of the regular armed services, shall be relieved from the payment of dues.

6.02 *Apportionment.* Exemption shall start with the quarter year in which he enters upon active duty, and shall continue until January 1 of the year following release from Active Duty.

6.03 *Refunds.* Where annual dues shall have been paid, they shall be refunded, apportioned on a quarterly basis, beginning with the quarter in which active duty starts.

6.04 *Military Service of Spouse.* Exemption and refund provisions of Section 6.02 and 6.03 shall apply when a member discontinues the practice of medicine in Oklahoma by reason of the military service of his spouse.

Section 7.00 *Assessments.*

7.01 *Collection.* Special assessments shall be collected and remitted in the same manner as dues.

7.02 *Reduction.* Members entitled to pay half dues shall pay only one-half of special assessments.

Section 8.00 *Record of Payment.* The records of the Association shall be evidence of the payment of all dues and special assessments.

CHAPTER X.

Component Societies

Section 1.00 *Constitution and By-Laws.* Each component society shall have a constitution and by-laws. These shall be in conformity with the constitution and by-laws of the Oklahoma State Medical Association, and a copy thereof shall be transmitted to the headquarters of this Association for approval and record. Any amendment of change in such constitution and by-laws of component societies shall be submitted to the Council for its approval and then filed with the Executive Office.

Section 2.00 *Charter.* All societies chartered by the Association shall be component societies.

Section 3.00 *Revocation of Charter.* The House of Delegates on its own initiative or on recommendation of the Council may revoke the charter of a component society for cause, or for failure of representation of that society by a delegate at three consecutive annual meetings of the House of Delegates.

Section 4.00 *Meetings.* A component society must meet at least six times each year. Officers shall be elected in November or December for the succeeding year.

Section 5.00 *Certification of Officers.* A list of officers, delegates and alternates elected shall be certified to the Association on or before January 1 of each year.

Section 6.00 *District Societies.* District Societies may be organized on petition to the Council, authorized by the House of Delegates, provided that one active member resides in each county of the district and that the county societies agree to dissolve and surrender their charters at the time of chartering the district society.

Section 7.00 *Transfer of Membership.* When a member of a component society changes his residence to another county, he shall receive a certificate of the facts relating to his membership from his component society, and if in good standing, shall continue in that status for a period of not more than one year, pending action upon his application for membership in the society to which he wishes to transfer. If the application is not approved, the applicant may appeal to the Council for relief. The decision of the Council shall be final.

Section 8.00 *Residence near County Boundary.* Where it is more convenient for a physician to belong to a society in a county other than that of his residence, he may do so with the consent of the society of the county in which he resides.

Section 9.00 *Less than Five Physicians in County.* A physician residing in a county where fewer than five physicians reside, for which there is no component society, is eligible for membership in the society of an adjoining county.

Section 10.00 *Discipline of Members.* No disciplinary action shall be taken against a member of a component society unless he shall have received a written copy of the charges against him ten days in advance of hearing. Records shall be kept of all hearings. A certified copy of such record shall be transmitted to the Association within 60 days of the date a decision is made.

Section 11.00 *Appeals from Disciplinary Hearings.* Members against whom disciplinary action has been taken, may appeal to the Council, in writing within 15 days of the effective date of discipline. Failure of the Component society to transmit a certified record of the hearing as provided in Section 10.00 shall result in re-instatement of the accused as a member in good standing.

CHAPTER XI.

Parliamentary Procedure

In the absence of a specific provision governing parliamentary procedure, the procedure specified by the latest edition of Roberts Rules of Order shall govern.

CHAPTER XII.

These By-Laws may be amended by majority vote of the delegates present at any annual meeting. All amendments shall be presented in writing at one session and may be adopted only at a subsequent session. No amendment shall become effective until the close of the annual meeting at which time it is adopted.

CHAPTER XIII.

Enabling and Repealing Clause. Adoption of this revision of the By-Laws shall repeal all previous

Deaths

LEONARD SCOTT WILLOUR, M.D.
1880-1958

Leonard Scott Willour, M.D., 77-year-old McAlester physician and a Past-President of the Oklahoma State Medical Association, died in McAlester, May 23, 1958.

Born in Troy, Pennsylvania in 1880, Doctor Willour graduated from Medico Chirurgical College in 1901. He practiced in his native state until coming to the Indian Territory in 1905, locating at Olney. A year later he moved to Atoka and then to McAlester in 1912 where he remained until his death.

Doctor Willour served as President of the Oklahoma State Medical Association in 1918-1919 and had served as secretary of the association and was editor of *The Journal* for many years. He was Vice-President of the Oklahoma State Society for Crippled Children and had been a member of the State Board of Medical Examiners for the past seven years.

An Honorary Member of the Oklahoma State Medical Association, Doctor Willour was also a member of the American College of Surgeons, the International College of Surgeons, the Oklahoma Orthopedic Society, the Oklahoma State Medical Association and the American Medical Association.

FRANK M. KEEN, M.D.
1903-1958

Frank M. Keen, M.D., 54-year-old Shawnee physician, died May 16, 1958 in Shawnee. Doctor Keen graduated from the University of Oklahoma School of Medicine in 1932. The greater part of his practice was limited to surgery.

Doctor Keen was a Fellow of the American College of Surgeons and a member of the Pottawatomie County Medical Society, the Oklahoma State Medical Association, and the American Medical Association.

By-Laws, Amendments, Motions of Record, Rules and Regulations in conflict therewith.

Any portion of this revision of the By-Laws in conflict with the Constitution shall be void.

Holmes, Semmelweis and Lister

There is ample evidence in recent surgical literature to indicate that staphylococcal (*Micrococcus pyogenes* var *aureus*) infections of hospitalized patients have become a matter of grave concern during the past few years. Many articles have appeared in the medical literature reporting severe micrococcal infections of surgical wounds, lactating breasts and infant integument. Postoperative sepsis caused by this organism has reached such serious proportions in some institutions that at least one hospital, in England, was completely closed down for renovation.

It has been well established that most of these infections are caused by cross-infection within the hospital environment. This very fact suggests that such micrococcal infections should be preventable. Because antibiotics have been so widely, even indiscriminately, used in the past we are confronted with the additional problem that nearly three-fourths of all strains of staphylococci in large hospitals of the world are now resistant to antibiotics.

The prevalent organisms in any hospital rapidly become resistant to every new antibiotic after it has begun to be used within that hospital. This is particularly true of *Staphylococcus*, *E. coli* and *Pseudomonas* organisms.

The University of California Hospitals launched a novel counterattack against this troublesome phenomenon in 1956. The hospital staff restricted the use of Novobiocin, to which the staphylococci were sensitive. This drug could be prescribed only when the physician certified that the patient had a serious staphylococcal infection. In fifteen months less than two dozen patients received Novobiocin. The drug was therapeutically effective and at times life-saving in these cases. Just as important—the staphylococci endemic to the hospital are still sensitive to Novobiocin. Our medical staffs might well

profit by adopting a similar program within their respective hospitals.

Every institution which has taken measures to control hospital infections substantially follows a program which includes improved aseptic technique; better control of environmental vectors such as blankets, dressing carts and the like; epidemiologic survey of physicians and hospital personnel and a meticulous program of contaminated wound management. Of all these measures, the most important appears to be strict asepsis. Perhaps it is time for us to read again the papers of Holmes, Semmelweis and Lister. The basic and fundamental principles of asepsis established by these great pioneers have not been abrogated by the advent of today's latest miracle drug.—*J.G.M., M.D.*

The Prognosis of Rheumatic Fever

The difficulties in the diagnosis of acute rheumatic fever has been long emphasized, as well as the good advice that this label should not be placed upon a patient of any age unless the medical evidence clearly warrants the diagnosis. Indeed, this led the late Dr. T. Duckett Jones to define a set of criteria relating to the major and minor manifestations of rheumatic fever. Despite the rapidity of medical progress, and the passage of many years, these criteria are still accepted as valid. The august councils most intimately concerned with rheumatic fever accept the modified Jones criteria as the best diagnostic index available. Studies on beta-hemolytic streptococcal infections, especially in military personnel by Rammelkamp and Seal and their associates, have helped to clarify the epidemiology of rheumatic fever. Furthermore, great light has been shed upon the prevention and control of this affliction by adequate antibiotic therapy of the acute streptococcal infection and prophylaxis in *all* patients who clearly had rheumatic fever.

The major unanswered questions have been in the area relating to rheumatic carditis. Inasmuch as the acute rheumatic process is not known to be permanently damaging to life or the health of the individual patient *unless* it affects the myocardium and the heart valves, then the necessary focus of attention has centered upon the prevention of this tragic sequel. One approach, used by many careful and thoughtful physicians, was the widespread use of the corticosteroid hormones as anti-inflammatory agents in *all* cases of acute rheumatic fever. This philosophy has been a source of kindly friction among physicians since the joint report of the American and British Heart Associations showed that the acute attack of rheumatic fever was better handled symptomatically by aspirin than by corticosteroids. Yet this still did not answer the question of whether rheumatic carditis might ensue following either therapeutic regimen, or whether one program was more protective than another.

At a recent meeting of the American Federation for Clinical Research in Atlantic City, Drs. Alvan R. Feinstein and Rodolfo Di Massa of the New York University College of Medicine and Irvington House, Irvington-on-Hudson, New York, reported their data that may be cogent clues in answering this question. They had followed 315 children and adolescents who had had unequivocal acute rheumatic fever. The follow-up period averaged 4.8 years with a range of 2-9 years. Nearly 80% of these patients had been followed four years or more. Despite other evidences of "rheumatic carditis" during the acute episode, such as congestive failure, pericardial effusion, etc., the patients were classified as to murmurs. The diagnosis of *Valvulitis* was placed on 96 patients without previous heart disease, in whom a definite diastolic murmur appeared or disappeared during the acute attack. Of this group, two-thirds now have rheumatic heart disease. Patients who developed a new loud apical systolic murmur or a questionable diastolic murmur were termed *probable valvulitis*. Thirty per cent of these patients now have rheumatic heart disease.

Despite other evidences of "carditis," such as a prolonged P-R intervals, systolic murmurs, congestive failure, gallop rhythms, in-

crease in heart size by x-ray, and other common observations in the acute attack, *no patient without valvulitis as defined above developed rheumatic carditis leading to residual heart disease*. As the authors so carefully stated, "The results also indicate renewed importance for the stethoscope as a diagnostic tool."

They might well have added that despite all of our tremendous advances in the technology and pharmacopeia of medical practice, we are indeed at times treating ourselves by the exorbitant utilization of potentially dangerous drugs such as the corticosteroid hormones during the course of acute rheumatic fever. It remains to be answered, of course, whether these agents have diminished the incidence of valvular heart disease, but to date the studies of the American and British Heart Associations would not support such a thesis. Their five-year follow-up report will thus be eagerly awaited. Meanwhile a word of caution to all physicians seems appropriate. Carefully validated and properly controlled studies are the only way to answer such a tenuous question as to the prognosis of rheumatic carditis.—*T.H.H., M.D.*

W. S. Willour, M.D.

About 10:25 p.m., May 23rd, 1958, in St. Mary's Hospital, McAlester, Oklahoma, where he had been a patient for a few weeks, Leonard Scott Willour expired. The last few days of his life there was evidence of improvement in his health; he was out of bed a part of the time and had seemed to enjoy the evening meal on the day of his passing.

The members of his immediate family now living are the widow, Mary Willour, of the home, a sister, Margaret Willour, of Oklahoma City, a daughter, Mary Noury, and her three children, of Duncan, Oklahoma.

At an early age Scott let it be generally known that he intended to be a doctor of medicine. Graduating from high school in 1896, at the age of 16, he would have entered medical college at once but no school would admit him when so young. He, therefore, marked time at the Pennsylvania State Teacher's College, Mansfield, Pennsylvania

for one year. Matriculating at Medico-Chi September 20, 1897, he was graduated May 25, 1901, a full fledged M.D. at the age of 21. Among his professors he admired and was impressed most by Doctor William J. Rodman, who had been called from Louisville, Kentucky, to be professor of surgery in Medico-Chi.

After interning at St. Luke's Hospital, Bethlehem, Pennsylvania, he did general practice in rural Pennsylvania until the autumn of 1905, when he came to Olney, Oklahoma, where he remained about one year. Moving to Atoka, he continued general practice until 1912, when a long cherished desire of his to specialize in surgery was gratified by the opportunity to become associated with Doctor LeRoy Long at McAlester. This association continued until Doctor Long moved to Oklahoma City as dean of the O.U. medical school.

Doctor Willour enlisted as first lieutenant in the medical corps of the army in May 1917, and was assigned to the fifth engineers at El Paso, Texas. In September of the same year he was promoted to captaincy, given a short course in orthopedic surgery and stationed at Camp McArthur, Waco, Texas. The following year he became a major and was sent overseas as chief surgeon of base hospital No. 94. He was discharged at Camp Dix May 20, 1919, and later attained the rank of lieutenant colonel, then colonel in the reserve. At his own request he was put on the inactive list in 1936 and was retired in 1945.

To most of the medical profession of Oklahoma he is known chiefly as having been secretary-treasurer of the State Medical Association and Editor of the *Journal* from 1933 to 1940. While carrying on a surgical practice, having only one clerical assistant, and receiving a nominal salary he issued a creditable *Journal* and conducted the affairs of the office efficiently. Having been president in 1918-19 and councilor for twenty years, he had a familiarity with the requirement of the office which was helpful.

A 33° Mason, he was for a number of years a member of the consistory quartet. He also had the distinction of having been

the only man to serve two terms as president of the McAlester Lions Club.

His intense interest in child welfare was evidenced by his activity as a director of the Crippled Children's Society and extensive surgery done gratis by him for those sponsored by this humanitarian organization. Perhaps not so generally known is the fact that he directed successfully a youths' chorus in the Presbyterian Church.

He often said that he wished never to retire and he did not. Until the last few weeks of his life, he went daily to his office in the McAlester Clinic, which he, Doctor J. F. Park, Doctor E. H. Shuller, and the late Doctor J. A. Munn established in 1936. No other interest superseded that of professional attainment as indicated by the following: Member of Pittsburg County, Oklahoma State, and American Medical Association, American College of Surgeons, International College of Surgeons, S. W. Surgical Congress, and Oklahoma Orthopedic Society.

Doctor Willour's predominating characteristics emanated from his extraversion. Surely, everyone who knew him would say that he was a pronounced extravert. When sold on a proposition and convinced that something should be done, he was for going all out to get it done. In short, he was a man of action. He had that rare quality of being able to argue the merits of an issue without indulging in personalities, of disagreeing bitterly but remaining the friend of his opponent.

Those of us who knew him longest and best, remember him as a capable and conscientious man of medicine, a genial companion, a faithful friend.—*T. H. McCarley, M.D.*

THE COVER

In the same immortal spirit of Francis Scott Key, let us never lose sight of our country's struggle for independence and continue to remind ourselves that the freedom of the nation as well as of the individual are constantly being subjected to increasing dangers; that freedom is as difficult to maintain as to achieve.

Scientific Articles

Analysis of the

Back Injuries of the Tri-State District

M. A. CONNELL, M.D.

In presenting a paper on Back Injuries before the Oklahoma State Medical Association, we thought that we should present the picture as it developed in the Tri-State field over a five year period and to classify the various types of injuries along with their final result. We have attempted to show what, in our opinion, are some of the factors responsible for these conditions and to make suggestions which may be of definite benefit in reducing the incident of back injuries, with their associated disabilities. In doing this, we have obtained the statistical data for a period between 1950 and 1954, inclusive, and have attempted to analyze all of the back injuries; to classify them and to correlate them with the pre-employment examinations which had been made previous to their employment or injury. Finally, with the interpretation of this information we felt that certain recommendations for their reduction would be quite obvious.

This paper represents the experience which we had in the treatment and management of back injuries in the Tri-State area of Missouri, Kansas and Oklahoma. This Tri-State district is a zinc mining area in which the zinc is associated with flint rock and is mined at a level of approximately two hundred to three hundred feet. This paper represents all of the back injuries, whether in the mining, milling or surface working of the district, and includes approximately 95 per cent of all of the operations in the field.

Between the years 1950 and 1954, inclusive, we treated 5,727 injuries, which included all types of injuries whether minor or major. Of this number 545 injuries were classified as back injuries. This included all types of injury or complaint of injury to the spine extending from the cervical to and

THE AUTHOR

M. A. Connell, M.D., graduated from the University of Oklahoma School of Medicine in 1932 and he is now a Preceptor of this school. His specialty is industrial medicine.

Doctor Connell is a member of the Industrial Medical Association, the Fracture Society and the American Association of Railway Surgeons.

including the coccyx. This included also all of the injuries which may have been caused by direct trauma as well as those in which there was no actual contact with the body. The 545 injuries represent 9.5 per cent of the total number.

In determining the cause of the alleged injury, the history as given by the patient was used in all cases except those caused by direct trauma. There were fifteen distinct causes which we thought should be classified separately and which we have listed in chart number one.

CAUSES OF ACCIDENTS Total 545

	Number	Percent of Total
Lifting	255	46.8%
Fall	65	11.9%
Jerked a kink	42	7.7%
Direct trauma	39	7.1%
Pulling	28	5.1%
Moving object, slipped	20	3.6%
Pushing	16	3.1%
Jarr	16	3.1%
Prying	14	2.5%
Shoveling	14	2.6%
Beating with hammer	13	2.4%
Started hurting	12	2.2%
Bending	8	1.4%
Climbing	2	.3%
Electric shock	1	.1%

Chart 1

In reviewing this chart it is obvious that lifting was the causative factor in 255 cases



In the lateral X-ray of this lumbar spine we see two defects on the anterior margin of the second and third lumbar vertebra. These conditions, of course, are of long standing and are probably due to pressure from the intervertebral disc in these areas. This condition of course should be recognized previous to the individuals employment although we do not consider this condition disabling in any way or that it can be aggravated.

or 46.8 per cent of all of the back injuries, and that direct trauma represented 7.1 per cent of the back injuries. This alone should be indicative of what may be accomplished in attempting to reduce the causes of these injuries.

For a number of years it has been felt by most industrial surgeons that certain pathological or congenital conditions seen in the bony and supporting structures of the back are contributing factors in the development of pain in the back and the prolongation of this symptom. With this fact in mind, we attempted to group our injuries into two separate groups, one in which there were contributing findings on the roentgenogram of the back and the other in which there were none.

The findings which are non-contributing to the development of back pain are:

- (1) Negative X-ray findings or no visible or apparent abnormalities.
- (2) The presence of a sixth lumbar vertebra or a rudimentary lumbarized or sacralized vertebra which may be sacralized bilaterally.
- (3) Simple spina bifida occulta.
- (4) The presence of centers of ossification on the bodies of the lumbar vertebra.

The contributing conditions noted in the roentgenogram findings are:

- (1) A thinning of an intervertebral space with or without a backward displacement of the proximal vertebra on the distal vertebra.
- (2) A spondylolisthesis of a proximal vertebra on a distal vertebra. This may or



This lateral X-ray shows a marked thinning of the intervertebral space between the fifth or possible sixth lumbar vertebra and the sacrum. This thinning is probably accompanied by a bilateral sacralization of a fifth lumbar vertebra. We feel that this is a rudimentary type space and did not have a disc, therefore is a congenital lesion rather than a traumatic one. Because of this, it is our opinion that this back is in no way weakened by this condition.

may not be accompanied by a thinning of an intervertebral space.

- (3) A generalized exostosis or localized exostosis ordinarily seen on the bodies of

the vertebra. This is an osteo-arthritic change or a hypertrophic type of arthritis of the spine.

(4) A rudimentary or extra lumbar vertebra which is sacralized on one side represents the instable type of back which we feel is contributory to pain.

(5) There may exist a thinning of an intervertebral space with an accompanying generalized or localized arthritic change represented by an exostosis. Ordinarily, if the exostosis is localized only to the area in which the thinning has occurred this is indicative of an inflammatory process which has been present over a long period and



This lateral X-ray film reveals an irregularity in the surfaces of the bodies of the vertebra. This condition is due to a weakness of an intervertebral disc causing pressure against the bodies of the vertebra resulting in an irregularity in these bodies. This condition has been described by Schmorl and is commonly known as Schmorl's nodes. The condition itself has no particular significance so far as pain and discomfort, however it does indicate a weakness in the structure of the intervertebral disc with a pressure being exerted against the bodies of the vertebra.

which may at any time result in pain in the back.

Now let us divide the back injuries into those who did lose time and those who did not lose time, and into those whose backs



This X-ray shows a thinning of the anterior margin of the second lumbar vertebra. Undoubtedly this thinning has been the result of a mild compression fracture which may have gone unrecognized and possibly untreated. Associated with this is also a thinning of the intervertebral space between the first and second lumbar vertebra. Should this condition not have been recognized on pre-employment examination, a history of back injury with this resulting thinning may be sufficient findings to warrant a diagnosis of a fracture of the body of the second lumbar with an injury to the intervertebral disc between the first and second lumbar vertebra.

showed definite contributing findings and those whose backs did not. Of the 545 back injuries, 415 or 76.1 per cent, did not lose any time but continued working under treatment and observation. One hundred thirty, or 23.8 per cent, lost time because of a painful back and this group lost 4,170 days or an average of 32.1 days per patient. The 130 patients who lost time were further divided as follows:

(1) Those having had direct trauma.

Sixteen of the patients fell into the group who had direct trauma with definite acute bony pathology. They represented 12.2 per cent and lost 1,540 days or an average of 96.2 days per patient.



This shows a spine with an acute scoliosis with thinning of the intervertebral spaces, in the anterior posterior view. Associated with this is a generalized osteo-arthritis change shown by the exostosis of the bodies of the vertebra. Undoubtedly this condition has developed over a great number of years and, in our opinion, is not the result of any single trauma. It is certainly well to have this X-ray previous to the employment of this patient. If, during the course of the patient's employment, he does develop an arthritic spine it will be possible to change his occupation to one which would afford him less trauma to his back.

(2) Those whose roentgenograms revealed contributing findings. Seventy of the patients, or 53.8 per cent, fell in this group and lost 2,086 days or an average of 29.8 days per patient.

(3) Those whose backs revealed non-contributing findings. Forty-four, or 33.9 per cent, of the patients fell into this group and lost 540 days or an average of 12.5 days per patient.

From this chart, it is obvious that the direct trauma, in which a patient either fell directly upon his back or was struck by a falling object, caused severe injury with prolonged convalescence and with resulting disability. It is also obvious that those patients whose pre-employment roentgenograms revealed contributing findings are much more susceptible to prolonged disability and that it occurs in a higher percent of cases.

At the present time all of these patients have been dismissed from treatment and those with permanent disability have been awarded this disability.

PERMANENT DISABILITY

Total 13		
Direct Trauma	Contributing findings	Non-Contributing findings
FOUR	NINE	NONE
1— 8%	1—Total Permanent	
1—10%	*5—25%	
1—25%	1—20%	
1—25%	2—15%	

*Two of those awarded 25% of a total permanent disability had surgical procedures performed on their back and following this the disability was determined to be 25%.

Chart II



This lateral X-ray shows two conditions very commonly seen in the pre-employment back X-ray. The first condition is a marked exostosis on the anterior margin of the fourth lumbar vertebra. This condition, isolated as it is, would indicate a definite irritation in this area for some cause. There is a spondylolethesis of a second degree noticed between the fifth lumbar vertebra and the sacrum with a rather acute angle of the sacrum. It is our opinion that this condition can definitely be aggravated and is a disabling condition.

Without considering those cases which had direct trauma, we concluded from this data that the patients who had some type of contributing pathology in their spine previous to their alleged injury were much



This X-ray reveals an acute thinning of the intervertebral space between the fifth lumbar vertebra and the sacrum with a slight backward displacement of the fifth lumbar vertebra on the sacrum. This could easily represent the loss of an intervertebral disc because of the backward displacement of the fifth on the sacrum. This back may be indicative of future pain since undoubtedly there has been a loss of disc substance.

more susceptible to prolonged periods of disability and had a higher degree of permanent disability than those having negative or non-contributing findings. As we study this data it is obvious that a great many conclusions and recommendations may be drawn, however, we think that we would like at this time to stress only four very important observations:

(1) From these charts we note that a great number of accidents result from conditions which have been brought about by the patient himself. The tremendously high percent of injuries resulting from lifting alone offers a challenge in attempting to reduce this most obvious cause. This, of course, is an engineering problem with the cooperation of the industrial surgeon or plant surgeon. Through a cooperative effort it may be possible to reduce the hazard by reducing the size of the objects lifted and by teaching the workmen the proper method of lifting. Perhaps a short session of demon-

strations may impress upon the employee the importance of protecting his back in lifting. This, we think, would apply to several of the other categories such as shoveling and pushing. A constant surveillance of the property by the engineer will reduce the hazards associated with direct trauma which has actually caused the greatest period of disability, but is actually only a small percent of the cases. This again is definitely an engineering problem. A certain number of causes seem to be due to the patients



This represents a moderately advanced spondylosis between the fourth lumbar vertebra and the fifth with a thinning of the intervertebral space which would indicate loss of disc substance. This condition, undoubtedly, is susceptible to aggravation and pain and discomfort in the back and likewise could result in definite nerve root pressure. Should this patient develop symptoms while in employment, undoubtedly the condition could be attributed to an injury. However, the pre-employment examination shows very clearly that this was a pre-existing condition and would be of definite benefit in a final diagnosis should this patient be employed.

walking, lifting or carrying on unsteady ground or footing so that they have fallen because of rolling objects or other irregularities underfoot. Again, safety engineering may help this.

(2) Perhaps you have noted that 75 percent of all of the alleged injuries lost no



This X-ray shows a unilateral sacralization of a fifth lumbar vertebra with a definite evidence of fusion between the transverse process on one side with a normal transverse process on the other. It is our opinion that this condition makes for an unstable type of back and in all probability could lead to back pain and nerve root irritation. This, of course, is a congenital condition however should the patient's back become painful during his course of employment there would always be a question of aggravation. This condition is one which we believe deserves serious consideration in the employment of an applicant.

time. Actually this figure is somewhat higher if we consider that a certain percent of these patients had direct trauma and obviously were unable to continue work. Our treatment is directed toward continuous working, under treatment and observation, of these patients. Unless we can find some definite physical finding to contra-indicate continuous work, we recommend and encourage the patients continuing their ordinary manual labor while under treatment. The treatment which we employ in itself is relatively simple. We hospitalize only the most acute cases and we attempt ambulatory treatment of all except the most acute. The treatment consists of Salicylates often supplemented by the use of Codeine or other analgesic drugs. The back is usually braced for a short period of time, ordinarily using adhesive strapping, and physical therapy is used to a minor degree. These patients are

encouraged to continue their work and are seen in our office after work or during breaks in their daily routine.

(3) Since our treatment is actually pointed toward early rehabilitation or continuous employment of the patients, we feel that cooperation on both the part of the employer and employee will benefit the employee in his convalescence and in his wage earning during his convalescence. We advocate the change of employment, if possible, to a different type of work during this convalescence.

(4) Finally, it is our opinion that the pre-employment of pre-placement X-ray examination of the employee will do more in the reduction of the number of back injuries and in the reduction of the disability, both temporary and permanent. We think that these individuals should be given a pre-employment examination with X-rays of the lumbar spine and that they should be employed in those occupations which would afford them the least possible hazard. It is obvious that a long time employee will develop contributing findings during the course of his employment, and it is obvious that this employee should not be penalized because of this. However, if it would be at all possible to place him in such an employment that his back condition would not be subjected to heavy trauma, such as lifting, pushing or any of the other causes, it would reduce this risk of injury and eliminate the possibility of a long convalescence and possible permanent disability.

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330 F, N. W., Miami, Oklahoma

CLINICAL PATHOLOGICAL CONFERENCE

J. P. COLMORE, M.D. and WILLIAM E. JACQUES, M.D.

Case Presentation

Patient: R. C. M., 17 year white male.

Chief Complaint: Vomiting, swelling of face, feet, and abdomen.

Present Illness: Two years ago the patient was treated for an episode of generalized edema, nausea, vomiting, oliguria, and hematuria, of about three months duration. He had no recurrence until about thirteen days before admission when there developed periorbital facial edema followed shortly by abdominal distension. There was slight to moderate oliguria, but no dysuria and the urine remained clear and of the usual color. About seven days later he had transitory pedal edema, which recurred about three days later and was accompanied by orthopnea and dyspnea. For about a week before admission there had been intermittent nausea with vomiting and a slight cough, gradually increasing in severity. There was slight hemoptysis for three days before admission. He was treated with diuretics by his local physician, apparently without effect.

Past History: Diphtheria at the age of five years; pneumonia in infancy, and again during the fifth year of life; intermittent attacks of tonsillitis until tonsillectomy at about the age of nine. At this time and again at the age of 15, he was told by a physician that he had a "bad heart." There is no history of swollen joints. Last year he had an operation for intussusception, with uneventful recovery.

Family History: Mother, age 42, father, age 52, and five siblings all living and well. The maternal grandmother died of a "stroke." The paternal grandfather died of "heart trouble." A paternal uncle died of "kidney trouble." A maternal great aunt died of "dropsy." Another maternal great aunt had "gallstones."

Physical Examination: Revealed a small, fairly well nourished, alert, cooperative, white male youth, who appeared acutely ill.

THE AUTHORS

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T. 98° F., P. 94 and regular, R. 56, and BP 160/110. He was orthopneic and coughing up blood-tinged mucus. There was periorbital and facial edema, and marked pedal edema. The abdomen was distended and shifting dullness was present. Skin and mucous membranes were quite pale. The neck veins were distended and pulsating. The left heart border was 2 cm. outside the midclavicular line to percussion. There was a soft systolic murmur at the apex. The liver was slightly tender and extended 8 cm. below the costal margin in the right midclavicular line. No other masses were palpable in the abdomen. There were palpable, small, discrete, nontender, anterior and posterior cervical lymph nodes.

Laboratory Data: Urinalysis revealed 3-4+ proteinuria with innumerable red and white cells in the sediment. The blood

contained 6.5 gm.% hemoglobulin; 2,980,000 RBC's/cu.mm., 15,350 WBC's/cu.mm. with 86% neutrophils and 14% lymphocytes. BUN was 100 mg.%; the serum protein and A/G ratio were reported as being within normal limits. The blood Mazzini was negative.

Hospital Course: The patient continued a steady downhill course despite rapid digitalization with digitoxin and divided doses of morphine sulfate for rest. On the third hospital day it was noted that he appeared somewhat more somnolent and lethargic, with a heart rate of 120 and gallop rhythm. Hypertonic solutions of glucose were given intravenously without perceptible effect. On the fifth hospital day he appeared somewhat irrational; however, the pulse had declined to 80 and rhythm appeared more regular. An ECG at this time showed a partial heart block, recurrent ventricular extrasystoles, and left ventricular hypertrophy. On the seventh hospital day a pericardial friction rub was heard and an x-ray examination revealed that the heart appeared markedly increased in size with accentuation of the hilar vascular markings. There appeared to be somewhat more fluid in the chest than had been previously noted. At 2:30 p.m. on the seventh hospital day the patient expired.

Differential Diagnosis

Dr. Colmore: There are a couple of questions that I would like to ask before starting out. In the physical examination, at the end of the second line, it says "R. 56"—which I presume refers to the respiratory rate. I would like to know if this is a typographical error, or if he was breathing that rapidly.

Dr. Jaques: That is correct.

Dr. Colmore: This is not a typographical error. Now, the history here is a little bit brief, but contains certain elements that are very intriguing indeed. As we go through, we are told that two years ago he was treated for generalized edema, nausea, vomiting, oliguria, and hematuria, of about three months duration. This comprises the entire historical data about his previous hospitalization. Obviously there are many questions I would like answered; I presume I won't

get them answered. I am interested specifically in whether this illness was preceded by an upper respiratory infection, and if so, how far in advance of the onset of his symptoms. We are not told what the level of his blood pressure was, what his urinary findings were, what the eye grounds showed at that time, what was the urinalysis subsequent to his discharge from the hospital, and not the least important point is he was treated, but how? All these I consider significant points and I don't have any information on them.

We are to presume that he was clinically well, since it is stated that he had no recurrence until 13 days before the present admission when he had essentially the onset of the same illness except, I believe, that he did not have gross hematuria the second time. He also had, in addition, slight hemoptysis; I don't know quite how to interpret that, but at least he had it. He received diuretics from his local physician, and these were without effect.

In the past history I think it is significant that he had intermittent attacks of tonsillitis until a tonsillectomy at the age of nine. Then again at the age of nine and at 15 we are told that he had a "bad heart." I have no idea what this infers, but I do know that at the age of 15 it would be two years prior to the onset of his terminal illness, which would date exactly with the episode described previously. It is difficult to know if this has reference to murmurs, one would suspect perhaps it did, and a little later in the physical examination we are told that on his last admission he does indeed have a systolic murmur. So again I don't know how to interpret that. He also had an operation, one year prior to his terminal illness, for intussusception with an uneventful recovery. I hope that he had an urinalysis, at least if not preoperatively, that he did postoperatively, and I certainly would like to know what that showed.

In his family history there are two things that interest me. One is that a maternal great aunt died of dropsy—usually this means that there was edema, classically one would say that this was nephritis as opposed to heart disease, but there is no way of telling here. The other point is that a paternal

uncle died of kidney trouble, and for those of you who have been taking histories on our patients for any length of time, more often than not in a male this refers to trouble with the prostate rather than renal disease. Again, I don't know what this means, if anything.

In the physical examination, we are given some information this time: he was afebrile and had a remarkably rapid respiratory rate of 56/minute; despite this his pulse was only 94, and he was hypertensive. This is the first time we hear of any abnormality of his blood pressure. He was orthopneic, coughed up blood-tinged mucus, slight hemoptysis continued and he apparently had anasarca. The skin and mucous membranes were pale. The heart was enlarged, there was a soft systolic murmur, and there was evidence of congestive heart failure. The soft systolic murmur and the pallor make you wonder immediately if this is a hemic murmur—of course we have already mentioned whether the so-called "bad heart" had reference to this same murmur. So we have two fairly logical explanations for that murmur, neither of which, at the moment, can I lay too much stress upon. He did have hepatomegaly which was very large, actually, and he had lymphadenopathy in the anterior and posterior cervical chains only. We are not told about the quality of the heart sounds, and I feel this has some importance, particularly later when the heart further enlarges, and we are not told of the appearance of the fundi. Again, I think this is a very important point, but we will try to struggle without it.

Now, the laboratory data—the urinalysis revealed a 3-4+ proteinuria with red and white cells in the sediment. We are not told the specific gravity. He was markedly anemic with 6.5 gm.% hemoglobin, his white count was elevated at 15,000 and some, with 86% polys. The BUN was 100. Blood Mazini was negative; serum protein and A/G ratio (we're not given the values) were certainly normal. Then, in a matter of some seven days, he goes steadily and progressively downhill, develops a gallop rhythm, has some central nervous system manifestations, is treated with hypertonic solutions of glucose without perceptible effect, de-

velops a pericardial friction rub, his heart increases markedly in size, and he expires. So, going on the basis of the information that we are given, I think it is quite abundantly clear that he dies in uremia, despite all attempts to correct the anemia and fluid and electrolyte imbalances. Also, this terminal illness represents the second episode of his symptoms, except for the gross hematuria, as we brought out. The first episode, to me, demands the diagnosis of acute glomerulonephritis. I pointed out what data was not available, blood chemistries, urinalyses, level of the blood pressure, the appearance of the optic fundi or the treatment. Nevertheless, given this two line description of his three month illness, I think one has to accept that this is acute glomerulonephritis. If this is so, what variety of acute glomerulonephritis does it represent? I am talking now of the plain out and out acute glomerulonephritis vs. an acute exacerbation in the course of chronic glomerulonephritis. There are certain points that would be very helpful. If we knew of an antecedent infection, and if so whether this was roughly 14 days prior to the onset of his symptoms, or whether it was a very few days (say two or three) prior to the onset of symptoms, it would have been the differential value because acute glomerulonephritis occurs almost invariably two weeks following a streptococcal infection, whereas in acute exacerbation, it occurs simultaneously with the symptoms of the streptococcal infection or within a very few days. This would be very helpful data, of course. The previous episodes of tonsillitis were all apparently without symptoms suggesting renal involvement at that time.

It is important to make a differential diagnosis of whether this is acute nephritis, or an acute exacerbation—not so much in this individual as in others—because of the difference in prognosis. As you are all aware, roughly 90-95% of patients with acute nephritis go on to uncomplicated healing and are then free, singularly free, of subsequent attacks of acute nephritis. In other words, acute glomerulonephritis which heals, protects against recurrences. Therefore, this would suggest to me that the original lesion failed to heal and this boy rep-

resented one of the group of 5-10% who go on from acute nephritis into chronic glomerulonephritis, or else that the first episode described was indeed an acute exacerbation rather than the onset of nephritis. In other words, both these episodes could be classified as acute exacerbations in the course of chronic nephritis. Everything we have said about the onset of the first episode in relation to streptococcal infection would be applicable to the second episode and, again, we don't have the historical data.

The physical examination we have already gone into. He is obviously acutely and desperately ill. I can't say that he has Kussmaul breathing (the deep regular respirations of acidosis) because I think he is breathing too rapidly to have this type of breathing. Nevertheless, I do feel that he satisfies the clinical picture of early uremia with anasarca, suggesting cardiac failure and, in addition, he has the symptoms of central nervous system involvement with some comolence and later on increasing lethargy.

In the laboratory field we have evidence of anemia, an elevation of the blood urea nitrogen, we have evidence of marked proteinuria and hematuria. Well, what doesn't fit with the picture of acute exacerbation in the course of chronic glomerulonephritis? First of all, he is bleeding from the lungs—he is having hemoptysis. This is difficult to explain. Of course, it might be pulmonary edema but, unfortunately, we are told he is raising blood-tinged mucus. This is not a characteristic finding in pulmonary edema. His white count is 15,000. This doesn't fit with the usual situation. His albumin and globulin partition and the total protein are normal. This, to me, does one main thing—it rules out the presence of nephrotic syndrome, in this individual. Everything else seems quite favorable for us to make the diagnosis of the nephrotic syndrome, but the absence of hypoalbuminemia to me rules it out. The adenopathy is limited to the anterior and posterior cervical chains and suggests more than anything else that the tonsillectomy didn't really stop the repeated episodes of pharyngitis but gave a different portal of entry for the streptococcus into

this individual. That's about all I make of that.

To get back to the bleeding from the lungs—another thing that occurred to me is the bleeding tendency that patients with uremia show. I'm not too familiar with it appearing in the sputum, but certainly it is not at all uncommon in the GI tract. These patients may have an increased prothrombin time, that is to say a prolonged prothrombin time which apparently is not the sole cause of the bleeding. We don't know his prothrombin time anyway. The elevation of the white count suggests that he has an infection. This is not unusual in uremia and since we have other signs pointing to the lungs we wonder if he doesn't have a pneumonia which is destructive locally in the lungs and causing him to have hemoptysis. We are also told that he has many WBC's in his urine. He could also have an infection in the kidney itself, accounting for the WBC's. He is afebrile. This doesn't fit with an infection of any consequence except that this is a desperately ill individual and, as you are all aware, they may not respond with a febrile response.

Lastly, the respirations of 56 suggest that he might have as part of his congestive heart failure, left ventricular failure with embarrassment of the pulmonary circuit and acute left ventricular failure, and also it would go with a significant infection in his lungs. Certainly the course is fulminant: he has been sick some 13 days prior to admission and he survives seven days in the hospital. His total course this second time is 20 days.

The BUN—one might say this isn't high enough for the patient to die in uremia. He isn't actually dying at the time we have a BUN of 100, we don't know what it was at the time he died, and anyway, he doesn't die because of the level of his BUN. The BUN itself is apparently not harmful.

He, clinically, must have had something that suggested hypertensive encephalopathy. He was treated with hypertonic glucose solutions without effect. This is supposed to be helpful in dehydrating the brain. We also know that patients with this syndrome of

acute nephritis who develop hypertensive encephalopathy, particularly if they go far enough to have convulsive seizures, have frequently gone into such marked congestive failure as a result of the violent exercise concerned in the fit that they die in acute failure. We also know that clinically he goes deeper and deeper into acidosis with his progressive renal failure. He fails to respond to digitalis in the face of what I am calling congestive heart failure. This is not unusual with the patient in uremia and so would be entirely within keeping there. It is also possible that he developed pericardial fluid and had tamponade. This is one of the things that occurred to me initially on the protocol, and again we are not told of the character of the heart sounds, which, of course, should be distant in the face of a significant amount of pericardial fluid, but we are told that he has a soft systolic murmur and unless this used to be a very loud one and which is now difficult to hear, this would seem to be against that possibility also. Certainly pericardial fluid wouldn't tend to respond to digitalis either. Then we are told that he gets a pericardial friction rub. This is common terminally in uremia, and that is one of the things we look for in the day to day examination of the patient with uremia. This time the listener is rewarded by hearing the pericardial rub. At first glance this is much in favor of his having a significant amount of pericardial fluid which ends in tamponade, but at the same time, more commonly than not, you do not hear a pericardial friction rub in the presence of a significant amount of fluid because the two surfaces of the pericardium are separated by the fluid. It is possible to hear this, particularly when the heart floats anteriorly on the fluid, so that the two surfaces of the pericardium are rubbing together at the base of the heart. That is possible here, but it seems to me somewhat doubtful. He may also have a cardiac lesion of some sort accounting for this murmur which is not explainable on the basis of chronic glomerulonephritis and, in other words, a separate diagnosis. If he does have this, I am unable from the data available, to make such a diagnosis. I cannot rule it out.

His age and sex are very compatible with

first of all, acute nephritis followed by the course which we discussed; two episodes of acute exacerbation in the course of chronic nephritis are not at all unusual and would be quite in keeping here. It is unusual in other lesions which could give this picture terminally however, and to me strengthens the case for chronic nephritis. Remember that he is in relatively good health between these two acute phases. We don't know what his urine showed in the interim and obviously it is all important. At least clinically he is fairly well between these two episodes. During the time that he is symptomatically well and by the time of the second episode he is markedly anemic and has marked retention of BUN—all this develops in this relatively symptom-free two year interval. I feel fairly confident that the diagnosis is chronic glomerulonephritis.

Other things that come to mind were lupus erythematosus and periarteritis nodosa. First of all, lupus would be somewhat uncommon in this age group and sex. We would much prefer to have a young female. They don't usually present this type of picture and things that make you think of lupus are not present in this patient. Periarteritis is entirely possible, but again, the two episodes suggesting acute nephritis, I think, would be somewhat unusual. However, either of these is possible, I feel. I can't rule them out. The other one that comes to mind is polycystic kidneys presenting with gross hematuria. That would be fine except that this fellow has the clinical syndrome of acute nephritis, not just gross hematuria. You do not see this in polycystic renal disease. My diagnosis would be terminal uremia due to chronic glomerulonephritis with two episodes of acute exacerbation during the course of his chronic nephritis.

Dr. Jaques: Any questions for Doctor Colmore?

Q. (student) Can you rule out the presence of rheumatic heart disease?

Dr. Colmore: Well, as I have said, I can't rule it out. He may have practically any type of heart disease co-existing in addition to the renal lesion. With the data given I am not able to make a separate diagnosis of a heart lesion. I believe it is more

likely, actually, that the murmur is either (I hate to use the term) an "innocent" murmur, since it was present at the age of nine, or that it represents a hemic murmur.

Q. (*student*) Can you be sure that the RUQ mass was an enlarged liver?

Dr. Colmore: I think the hepatomegaly is entirely consistent with the degree of congestive heart failure that he had. He had massive anasarca anyway, and a tender liver, 8 cm. below the costal margin. We don't know anything about the liver function tests. We also don't know much about serum electrolytes or anything else in terms of the renal disease. One liver function test that is very important that we do have however, is a normal serum albumin.

Q. (*student*) Could the mass represent a polycystic kidney?

Dr. Colmore: Oh, I see what you mean—that this great mass called liver could be kidney. This is possible, but if so, the left kidney ought to be almost equally the size. I would expect this patient to have had a great deal of pain with renal cysts by the time he had gotten to the point of exitus from this disease. He could, of course, have enlargement of the liver with cystic involvement as well, and of the lung. As I say, this occurred to me, except that the course is not that of polycystic disease.

Q. (*student*) How do you account for the leukocytosis?

Dr. Colmore: As I said, he may have had an intercurrent infection. He has a white count of 15,000. He may well have intercurrent infection in the kidneys, as well. I don't know. I think that while these findings may not be those of chronic glomerulonephritis, the renal findings are certainly compatible, except for what you point out, with an acute nephritis or an acute exacerbation.

Q. How can you rule out the presence of subacute bacterial endocarditis?

Dr. Colmore: This is certainly possible if you ignore the history prior to 13 days before admission. I think if one takes into consideration the three month illness two years previously which is so similar to the

present episode, it is hard to imagine that he could have such an overwhelming subacute bacterial endocarditis of three years duration.

Q. Why couldn't he have had a coarctation of the aorta?

Dr. Colmore: You mean coarctation of the aorta giving him hypertension which now ends in what is called "terminal kidney?" That is perfectly all right. Again I ask how can we explain the two episodes that to me are clinically acute nephritis. You don't see this in coarctation. Certainly a man with coarctation and hypertension can die in renal failure. If you ignore what is in between in terms of history it fits very nicely. They don't give his blood pressure in his lower extremities. So we can't rule it out on that basis.

Dr. Jaques: Dr. Colmore, before you leave, just a couple of questions I would like to ask you. If you feel this glomerulonephritis, do you still believe in Ellis' classification,¹ do you feel it is Type I or Type II? The second question is, What do you think of the present status of anti-rabbit-kidney-duck serum?

Dr. Colmore: I have no comment on either. I don't believe in Dr. Ellis' classification, so that gets me out of the first question and the anti-rabbit-kidney-duck serum is very interesting. I would like to hear your comments on that.

Pathological Discussion

Dr. Jaques: First of all, the autopsy findings. At autopsy, the heart was enlarged, weighing 375 gm. and revealed both right and left ventricular hypertrophy. On microscopic examination this was borne out with the nuclei being more than 132 microns apart which is bona fide evidence of hypertrophy. There is no evidence of any rheumatic carditis or any other valvular lesions. However, there was a small amount of interstitial fibrosis. The lungs were heavy and at gross post they were described as being markedly wet. Microscopic examination revealed fibrin network projecting into the alveoli and showing fibroblastic ingrowth and a paucity of inflammatory cells, which is probably consistent with uremic pneu-

monitis. I should have mentioned there was about 125 cc. of pericardial fluid and there were numerous fibrinous adhesions, apparently producing the friction rub.

The spleen was slightly enlarged with prominent Malpighian corpuscles. It did show a fair amount of erythrocytrophagocytosis. The liver was enlarged, weighing 1900 gm. and on microscopic examination revealed both acute and chronic passive congestion. There was no evidence of any cardiac cirrhosis.

The kidneys were both enlarged, weighing 185 gm. The capsule stripped with ease to reveal a finely granular external pale surface. On cut surface, there was diminution of thickness of the cortices with some obscuration of the corticomedullary demarcation. Microscopic examination revealed a rather diffuse glomerular change. This consisted of many areas of actually hyalinized glomeruli and in other areas there was hypercellularity of the glomeruli, increased lobulations, and apparently thickening of the basement membranes. A crescent formation was seen in other areas, and still in other areas there was seen a more acute episode. As one examined the kidneys even more carefully, in a few areas there was an interstitial infiltrate of polys which might account for the terminal white cells in the urine. To digress for a moment, very commonly, many of these patients with whatever the nature of the initial renal disease end up with acute pyelonephritis. This was particularly true in a series at Peter Bent Brigham Hospital which we had been following. These patients frequently end up with acute pyelo, even though they may have glomerulo or nephrosclerosis initially.

The adrenals were essentially normal and microscopically showed no evidence of any lipid depletion.

The gastrointestinal tract was likewise not remarkable and there was no evidence of any uremic colitis. Unfortunately, permission to examine the brain was not given. Doctor Colmore's pertinent question referable to the lamina dura, I am sorry to say, the prosector didn't look for the parathyroids either, so we have no evidence of any parathyroid disease. I think in essence, this

case represents a pretty good case of glomerulonephritis which was essentially chronic, or was between subacute and chronic, but apparently with an acute exacerbation and also having some acute pyelo terminally. There's also evidence of uremia and uremic pericarditis and perhaps uremic pneumonitis. There was also evidence of some failure because of both left and right ventricular hypertrophy with some myocardial fibrosis as well. I should have mentioned thickening of the septa of the lungs, hemosiderin laden phagocytes and the Weiss-Parker changes one finds in passive congestion.

We might spend a couple of minutes on some of the newer concepts of glomerulonephritis especially from the experimental standpoint, they may sound sometimes a little bit erudite, but sometimes they will also add something to the overall understanding of this condition.

This is really not being facetious in asking about the anti-rabbit-kidney-duck serum. If you take a homogenate of rabbit's kidney and inject it into a duck and then take the serum from the duck and inject it into a rabbit, you can produce changes which are quite similar, histologically, to glomerulonephritis and even clinically many of these rabbits show a so-called nephrotoxic nephritis. It is usually more of a nephrotic type of syndrome. However, if you carry some of this work over into human beings, as has been recently done by Dixon² and by labeling anti-human globulin and placing it in the kidneys who die of glomerulonephritis and apply Coon's technique to it, you can fluoresce right at the basement membrane of the capillaries which would lend some credit to the idea at least that globulin plays a part in this and it is localized at the glomerular capillary level. If you use anti-human albumin, you get only a background fluorescence, so you get some pretty good evidence that something does happen at this level, whether it is antigen-antibody reaction, at least there is some evidence that this may occur. Even one can go further than this and actually do centrifugation of glomerular elements and again you find that the highest globulin content is in the basement membranes of the kidneys. Even further,

if one uses a still more refined technique, such as electron microscopy as it was done by the late Doctor Rinehart³ in San Francisco, and a few other people more recently, one finds that there are rather profound changes in the glomeruli which frequently are not obvious to the so-called light microscopist. This consists of a proliferation of epithelial cells which you certainly see by light microscopy. But one finds instead of having little feet, these epithelial cells have feet growing on the basement membrane, they form a diffuse line against the basement membrane and the cytoplasm of these cells become quite vacuolated. Likewise, the basement membrane becomes thickened and shows vacuolization. I think that in the past, one of the most difficult things to explain was the fact that why do you get proteinuria in the presence of a thickened basement membrane. You think of a thick membrane and how is protein going to get through it? In the light of this, perhaps there is an act of transfer, perhaps across the basement membrane in these epithelial cells and into the capsular space of Bowman.

Dr. Colmore: I know Doctor Ellis feels that essentially these are two separate diseases and that there is recovery from one and not the other. I can't get the types straight in my own mind. I believe Type 1 is the one that does not progress to chronic. Is that correct? Eighty-four percent recover. I don't think there is any conclusive evidence either way actually as to whether Ellis is right or wrong. I would prefer to defer judgment until one can state definitely that this is true or isn't true. As far as I can tell clinically, I cannot at the time recognize the patient who has acute nephritis, I cannot differentiate the one who will recover completely from the one who will not. It is my belief that the one who

does recover completely, and by this I mean no hematuria or albuminuria especially, six months later, let us say, I believe these patients never develop acute nephritis again. I think they are protected. However, whether this represents a different disease, or whether it just represents a different reaction on the part of the host to whatever causes acute nephritis, I don't know. I can't answer your question beyond that. I don't know what causes acute exacerbations anyway.

Q. (student): Is there a familial predilection for this condition?

Dr. Colmore: It is true that in some of these diseases, like acute nephritis or glomerulonephritis, some families tend to be more susceptible. I don't believe at all that there is something inherited which causes glomerulonephritis. No. Perhaps it's their genetic inheritance which makes them react to the streptococcus in this fashion, we think the streptococcus is the noxious agent in whatever antibody response winds up with damage to the kidneys. To me this is much like the inheritance of allergy. Certainly asthma isn't inherited as such, but apparently certain families do inherit a proclivity for allergic manifestations of different types. I think this is a similar mechanism.

Final Pathologic Diagnosis

Chronic glomerulonephritis.

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SPINAL CORD INJURIES

with Early Physical Medicine and Rehabilitation

HERBERT KENT, M.D.

Today in Oklahoma, as elsewhere,¹ patients with spinal cord injuries can be given a new lease on life provided comprehensive Physical Medicine and Rehabilitation efforts are instituted early, consistently, and with consummation.² Our medical confreres and fellow citizens can thus take cognizance of a scientific cooperative triumph over what has been considered an impossible disability to treat. Of the patients with such disabilities, who normally would face invalidism and possible early demise, approximately eighty per cent can be trained to ambulate on crutches and of this number seventy per cent can be made employable again.³ This restoration of independence is a hallmark of human engineering where profits may be measured in dignities as well as productive capacities.

Extent of Our Problem

Following upon World War I, spinal cord injury was not a rehabilitative problem. Almost all the patients died. But thanks today to antibiotic therapy, improved surgical methods, Physical Medicine and Rehabilitation, paraplegics of World War II have managed to live on successfully.^{4, 5}

Accidental deaths resulting from motor cars in Oklahoma during 1957 totalled more than 600 and subsequent non-fatal injuries have been estimated at 3,000. Added to all other accidental disabilities, physicians must engender new concepts in medicine if they are to solve the growing hazard of our civilization. Lacking specific measures for the cure of many disabilities, we must circumvent these impasses through rehabilitation. Such restitution of physical and mental usefulness demands that adequate rehabilitation services be available.

It has been estimated by the Oklahoma Division of Vocational Rehabilitation that there is a need for the rehabilitation of 50,000 adults, but only about 1,500 persons

THE AUTHOR

After graduating from the Royal College of Physicians and Surgeons, British Isles, Herbert Kent, M.D., received his residency training in New York at Columbia University College of Physicians and Surgeons and at the Institute of Physical Medicine and Rehabilitation, Bellevue Medical Center, New York City.

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are rehabilitated each year in this state because of lack of sufficient funds. Our more than 120 hospitals have a total bed capacity of at least 19,000 as reported by the State Board of Health statistics. Because of the insufficiency of adequate facilities and staff, it is doubtful whether more than a handful of beds can be found in civilian hospitals where such patients can be rehabilitated!

The patients in this series were treated at the University Hospitals, University of Oklahoma Medical Center. Other institutions known to have satisfactory rehabilitation services in Oklahoma are the Veterans Administration Hospital and Children's Convalescent Hospital. The latter facility is limited to those under 21 years of age. One also cannot fail to mention the excellent program at the Okmulgee Rehabilitation Center.

Patients Treated

A total of 16 patients were studied from January 1956 to January 1958. Many more were available but due to lack of bed facilities, they were forced to seek similar services elsewhere. All injuries sustained were traumatic in origin, usually the result of a motor car accident. Gunshot wounds, diving accidents, and falls accounted for the re-

TABLE I

	Patient	Level	Onset	Age	Urinary Infection	Bed Sores	Con-tractures	Cause	Results
CERVICAL	I. E.	4, 5	April 1957	25	+	+	+	Auto	Completely helpless breathing difficult
	R. M.	4, 5	July 1957	15	0	0	0	Diving	Wheelchair, Partial self-care e.g. feeding
	E. H.	5, 6	Aug. 1957	49	+	+	+	Auto	Wheelchair only No self-care
	J. M.	5, 6	June 1956	23	+	+	+	Diving	Homebound-Bed No self-care
	R. L.	5, 6	May 1957	17	0	0	0	Tram-poline	Wheelchair, Partial self-care e.g. feeding
	W. M.	5, 6	Jan. 1956	20	0	0	0	Auto	Braces/crutches — Am-bulatory—Self-care
	W. B.	5, 6	June 1954	19	+	+	+	Auto	Homebound wheelchair /bed Partial self-care
	W. K.	6	June 1957	40	0	0	0	Fell from window	Braces/crutches Ambulatory
	B. E.	6, 7	Nov. 1956	63	+	0	0	Auto	Braces/crutches—Self-care—Ambulatory
	E. M.	6, 7	May 1957	44	+	0	0	Auto	Wheelchair, Partial self-care e.g. feeding
THORACIC	C. K.	2, 3 4, 5	Oct. 1955	14	0	0	0	Motor-cycle	Braces/crutches Ambulatory
	F. M.	3, 4	June 1952	18	+	+	+	Gun Shot	Wheelchair, Partial self-care
	V. D.	3, 4	Aug. 1957	21	0	0	0	Auto	Wheelchair—Braces & crutches—Ambulatory
	J. M.	12	Nov. 1957	13	0	0	0	Gun Shot	Crutches—Ambulatory Self-care
	R. B.	12	Oct. 1957	44	0	0	0	Drunk fell down stairs	Braces/crutches Ambulatory
LUM-BAR	J. P.	2, 3	Jan. 1957	28	0	0	0	Auto	Braces/crutches Ambulatory

Series of patients treated with cord levels and complications

mainder in this series.

Table I indicates the 16 patients and results obtained. These cases were seen at the University Hospitals on consultation and, following evaluation, programs of Physical Medicine and Rehabilitation were prescribed. There were ten patients with injuries to the spinal cord in the cervical region—seven male and two female. Their ages ranged from 15 to 63 years. Patients with thoracic level lesions totaled five of whom two were female and three male. Their ages varied from 13 to 44 years. Only one patient was seen with a spinal cord injury in the lumbar region. He was 28 years of age.

For simplicity, complications have been

broken down into three categories: genito-urinary infection, decubiti, and contrac-tures. Frequently in patients with genito-urinary infection calculi have developed in the bladder, ureter or kidney pelves. These stones subsequently had to be removed sur-gically. As was to be expected, bed sores were evident in those with long standing in-juries, particularly when the trauma oc-curred in the cervical portion of the spinal cord. Contractures were more common in the patients having a relatively old disabili-ty. One individual with a thoracic level in-jury showed moderate contractures which was attributed to continued positioning in a wheel chair.

The causes of the injury were as follows:

motor car—9; diving accidents—2; gunshot wounds of the spine—2; trampoline—1; falls—2. The results of treatment were related for the most part to the duration of injury. Ensuing complications, especially those found in the older cases, were found to be due to negligible and interrupted Physical Medicine and Rehabilitation. Of the 16 patients treated from a state of complete helplessness, all but one achieved a significant therapeutic goal. Seven progressed to the stage where they could propel wheel chairs themselves. Eight patients became ambulatory on braces and crutches. Three were able to assist in some degree with their self-care activities, e.g., feeding, toileting, and etc. Only one patient with a cervical lesion at the level of C.4-5 remained completely disabled. This patient, a female, was only kept alive by the efforts of the rehabilitation team. Her complications involved: impaired vital capacity, numerous episodes of urinary infection, bed sores, contractures, and marked muscle spasms sufficient to cause her to be thrown off her frame unless restrained.

Comment on Results

The goals these patients were able to attain is a valuable estimation of the functional potential possible for a later social and vocational life. Being ambulatory with the aid of braces and crutches signified independent living within a household and outdoors as a rule. If a disabled paraplegic is not homebound and has modern hand controls on his automobile, he can qualify for selective employment. These acquired skills may be considered a yardstick for successful therapy.

It is to be noted that only three patients with cervical cord lesions or 30 per cent were able to achieve ambulation. This would indicate, in these cases, that some cord elements became functional since the triceps, flexor and extensors of the fingers are a necessary minimum for stabilizing the elbow in the use of crutches. These muscle groups generally are innervated from above the seventh cervical level.

In the thoracic transection group, four out of five or 80 per cent became ambulatory on braces and/or crutches. The fifth patient demonstrated the consequence of in-

adequate and late therapy followed by urinary infection, bed sores and contractures. For despite the fact that a wheel chair existence was acquired, in terms of maximum rehabilitation, the case reveals only partial success for our efforts.

Likewise, the patient (E.H.) with a C.5-6 level lesion and a wheel chair achievement our results cannot be construed as being notable despite the recent origin of injury.

Patients with transections in the lumbar region are not usually "difficult" to rehabilitate. With strong upper limb muscles, fully innervated abdominals and good stabilization of the back most patients can be trained to develop a good gait with braces and crutches.

In summary, it can be stated that of the patients given early and sustained comprehensive rehabilitation services, more than 67 per cent in our series demonstrated satisfactory results.

Basic Principles of Rehabilitation Employed

As an elementary consideration, good medical and nursing care is vital to the success of treatment. However, it is essential that the following management be stressed repeatedly since the prognosis for life and rehabilitation is intimately bound with early goals.

1. *Genito-urinary Tract*—Infection and subsequent bladder-bowel control, depend upon prodigious efforts by the nursing staff and urologist. A Foley catheter changed regularly every seven to ten days, tidal or other drainage measures for maintenance of bladder capacity and a bladder-bowel training program will obviate many setbacks. The bladder may be trained by a rigid 24-hour fluid schedule with two hour periods for voiding and increasing to tolerance. Bowels can be regulated by enemas, glycerin suppositories or digital control. At least 70 per cent of "cord" bladders can thus be encouraged successfully. Systemic symptoms should be treated immediately and effectively. Although it is recognized that the presence of a catheter connotes infection, calculi are frequent, to be expected and should be carefully guarded against constantly. In addition, appropriate treatment of these should not be delayed unduly.

Nothing can "ground" a patient as quickly as a fulminating temperature nor be as destructive to motivation if repeated too often. Such delays with Physical Medicine and Rehabilitation schedules can result in weeks and months of bed fastness. Finally, inactivity encourages the development of decubiti, malnutrition, and contractures, triple hazards under any circumstances.

2. *Skin*—A Stryker Frame type bed is the most advantageous medium for preventing skin complications and assisting in nursing care. Patients in the early stages of management should be turned every two hours, day and night. The nurse must be on guard at all times for the slightest sign of skin irritation and pressure. A leaking catheter will not be long in contributing to decubitus ulceration. When an early bed sore is detected, prone nursing is to be stressed. Other appropriate measures for maintaining the hygiene of the skin should always be carried out, but relieving pressure over bony points is the most important phase of treatment. This can easily be accomplished with a Stryker Frame.

3. *Contractures* — Active and passive therapeutic exercises embodying all the principles of basic Physical Medicine will minimize the development of contractures.⁶ Assistive aids, such as a functioning foot-board and braces contribute greatly to such prevention. Since muscle imbalance resulting from the paralysis is the underlying cause of muscle shortening, retraining measures employed in rehabilitation have been found to be most satisfactory.

Conclusion

Our study should make physicians understand more clearly that despite the fact that protracted medical care is necessary for patients with injuries of the spinal cord, if they are left untreated, hoped for goals, no matter how short of attainment become more formidable. Despair only lies in the effort that is necessary for success. As long as health agencies and professional personnel are inadequately informed, a realization that rehabilitation pays economic dividends is not possible. The spinal cord injured person who is not restored to society is ultimately a greater burden than is the person who has arthritis or neglected cancer.

Though the complexities of treatment be great, it is not uni-dimensional. The treatment for spinal cord injuries demands a highly differentiated and integrated team of physicians, physical and occupational therapists and many other specially trained personnel. It has been said that a superior degree of professional orchestration encompassing financial, capital, and coordinating leadership is demanded in rehabilitation. Finally, the bleak prognosis which medical men have often given to relatives of individuals so handicapped is disproven again. It is now time for us to take a second look. We cannot prescribe finality for anyone without delivering all that money and research can offer. Money spent intelligently is not capriciously wasted if it is accompanied by wise interest and direction. It is to be hoped that with leadership and unification of interests, we can fulfill our obligations to humanity.

Summary

The results of this study presented is primarily to accent optimism when a patient is seen who has sustained injury to the spinal cord. As automobile accidents and diving tragedies become more frequent and severe, the earlier a spinal cord injury is treated appropriately and expeditiously, the more effective can be our final achievement. Fortuitous thinking and planning by our communities for beds in which such patients can be treated, development of specialized Rehabilitation Centers and early referral can materially contribute to successful rehabilitation in the majority of spinal cord injuries. Sixteen patients are discussed in some detail. Our recovery rate has been 67 per cent.

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Etiology of

ASEPTIC MENINGITIS*

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In 1925 Wallgren¹ introduced the term aseptic meningitis to designate an epidemic disease he believed to be an etiologic entity. To be included in this category the following criteria had to be met: 1. an acute onset with signs and symptoms of meningeal irritation; 2. spinal fluid pleocytosis; 3. spinal fluid sterile by the usual bacteriologic techniques; 4. comparatively short benign course without secondary complications; 5. absence of any indications of parameningeal disease (otitis, sinusitis, trauma, etc.) or systemic infection which might have meningitis as a complication (tuberculosis, poliomyelitis, mumps, typhoid, etc.); 6. absence in the community of an epidemic disease that might be associated with meningitis.

In the years that followed it became quite apparent that aseptic meningitis was not a specific disease but rather a syndrome associated with a large number of diseases. Wallgren was cognizant in 1925 of the similarity of the clinical features to the meningeal symptoms of tuberculous meningitis, poliomyelitis, epidemic encephalitis, mumps, syphilis, Weil's disease and other systemic diseases. Subsequent experience has shown that a number of other diseases may at times simulate this syndrome. Most of the neurotropic viruses are potentially capable of producing aseptic meningitis. Thus, in an attempt to retain the usefulness of the term aseptic meningitis workers have gradually altered its meaning. When it became clear

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that many of the cases grouped in this category represented complications of systemic infection such as those caused by mumps, poliovirus and others, Wallgren's fifth and sixth criteria were dropped. Since many "typical" cases do not have a short benign course, his fourth criterion has often been overlooked. Most investigators now consider aseptic meningitis as a syndrome characterized by the acute onset of signs and symptoms of meningeal irritation in which the spinal fluid is sterile by the usual bacteriologic techniques and has an abnormally increased cellular content usually predominantly lymphocytic.

The causes of aseptic meningitis are so numerous that a complete discussion of the problem is impossible within a presentation of this type. Since the most common causes of aseptic meningitis are infectious ones,

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especially those of a viral etiology, and since such significant advances in our understanding of these diseases have been made in the last few years, this communication will be limited to a discussion of these conditions.

Etiology

The central nervous system and its meninges may react in an identical fashion to a wide variety of infectious and non-infectious insults. Table 1 outlines the numerous and diverse disease processes which may produce aseptic meningitis. Viral infections make up the largest etiologic group.

Clinical Picture

In the early stages the clinical features of aseptic meningitis are usually non-specific and include fever, vomiting, irritability, headache, and signs of meningeal irritation. Differentiation on clinical grounds alone is usually impossible. The following case report is a typical example:

J. B., a seven year old white male was well until four days before admission when he developed fever, up to 101° F, nausea and malaise. He was seen by his family physician who noted mild inflammation of the pharynx and administered an injection of penicillin. There was no improvement and he began to exhibit drowsiness, increasing fever and headache. His physician noted stiffness of his neck but no other localizing neurologic symptoms. The patient was then referred to this hospital for further diagnosis and treatment. Examination on admission revealed a drowsy, acutely ill child in no distress. Examination was otherwise not remarkable except for signs of meningeal irritation.

The leukocyte count was 8,900/cmm. Examination of the spinal fluid revealed 132 leukocytes/cmm., 94% of which were lymphocytes, a normal sugar and slight elevation of the protein content. The direct smear revealed no bacteria and all bacterial cultures were sterile.

In any given instance the etiology may become clear as the clinical course unfolds with the appearance of pathognomonic clin-

ical, laboratory, or epidemiologic information.¹² Pathognomonic signs which may clarify the etiology usually appear in the next few days, if they do at all, and include: 1. clinical evidence of mumps such as parotid swelling, orchitis, and pancreatitis; 2. changes in reflexes, sensory disturbances, disturbances of mood and affect indicative of arthropodborne encephalitides; 3. flaccid paralysis without sensory changes suggesting poliomyelitis; 4. roentgenographic pulmonary changes and positive tuberculin test indicative of tuberculosis; 5. clinical and laboratory evidence of leptopirosis (jaundice, hematuria, albuminuria); 6. historical, clinical, and laboratory evidence of inadequately treated bacterial meningitis.

But more often than not these diagnostically helpful signs do not appear. The picture is most commonly one of improvement over the next few days with no residual findings except possible mild stiffness of various muscles groups. In such cases it is only by appropriate laboratory procedures that a specific etiologic diagnosis can be made. During the last few years new and improved laboratory diagnostic methods, particularly the development of tissue culture techniques, have helped greatly to clarify the etiology of aseptic meningitis through identification of the causative agent in many cases. It is imperative that specimens be collected properly and obtained at the correct chronologic stage of the disease. For virus isolation the stool is most commonly used; however, in certain diseases throat washings, spinal fluid or material from skin lesions are needed in order to recover the virus. Other laboratory diagnostic procedures for virus diseases include complement fixation, neutralization and hemagglutination tests. Immediately upon suspicion of any of the diseases that cause aseptic meningitis, serum for these serologic procedures must be obtained and stored in the deep freeze. This acute phase serum should be paired with convalescent specimens obtained two and four weeks after the initial one. Paired sera are necessary in order to compare the changes in antibody titer since most virus diseases do not show a rise in titer until two or more weeks after the onset of the infection.

Specific Etiologic Causes

Poliomyelitis: Because poliomyelitis has been covered so extensively in recent years it will not be discussed in detail here. The poliovirus is in all probability the commonest cause of aseptic meningitis. Clinical features of non-paralytic poliomyelitis are non-specific and accurate diagnosis by clinical features alone is not possible. Temporal and geographic relationships of some cases of aseptic meningitis to obvious paralytic poliomyelitis make it more likely that the former represent instances of non-paralytic poliomyelitis. It is equally true, however, that epidemics of other viral diseases that produce a similar non-paralytic illness may and frequently do co-exist with poliomyelitis in a community. Virologic investigations consistently confirm the diagnosis of poliomyelitis more frequently in cases of paralytic disease than in those classified as non-paralytic. Thus, an accurate diagnosis of non-paralytic poliomyelitis can be made only by isolation of the virus from the feces, by demonstration of a rise in the titer of neutralizing or complement-fixing antibodies or by both these means. Serologic procedures have proved disappointing when used alone for the diagnosis of poliomyelitis, since a considerable proportion of patients have demonstrated their maximal antibody titer by the time they come under the physician's care.

In years past it was common to consider virtually all cases of acute aseptic meningitis in which other pathognomonic signs did not appear as examples of non-paralytic poliomyelitis. However, it is apparent that this is incorrect; in fact other viral infections in a particular community at any one time may be a more common cause of aseptic meningitis than is the poliovirus.²⁵ The "new" type of poliovirus reported by Soviet scientists and designated as Russian Type 4 poliovirus has been shown to be Coxsackie virus, Type A 7.³¹

Mumps: For many years it has been known that neurologic complications may be associated with mumps. Until recent years this knowledge was limited to those cases that exhibited evident parotitis or by inference to cases epidemiologically related. In 1945 it was shown that the mumps virus

could be cultivated in the chick embryo and that it could be detected by hemagglutination methods.^{2,3} Subsequently the agent was isolated from the spinal fluid of patients with mumps meningitis.⁴ The development of complement fixation and hemagglutination-inhibition techniques made it possible to study mumps infections with relative ease. These diagnostic tests make it possible to differentiate mumps from other types of parotid swelling.²³

Considerable controversy has and still exists concerning the frequency with which meningocephalitis occurs as a complication of parotitis. Afzelius-Alm⁵ in summarizing a number of studies concluded that about 55% of the patients with mumps parotitis have spinal fluid pleocytosis. It is likely that meningitis is more frequently associated with mump infections during childhood than during adult life.²⁴ Furthermore the frequency of meningeal involvement may vary from epidemic to epidemic as a result of variations in the neurotropic properties of the virus.

Mumps is undoubtedly one of the important causes of aseptic meningitis. Although the exact incidence is not known it is not uncommon that meningitis may be the only obvious features of mumps infection. Estimates as to its occurrence have varied from 5% to 30% of all mumps infections.⁶ Adair and associates⁷ reported that 14.1% of aseptic meningitis studied at the Walter Reed Army Medical Center were due to infection with the mumps virus. Afzelius-Alm⁵ found an incidence of 8% among 76 cases in Scandinavia. In Louisiana two studies revealed an incidence of 9% and 15% respectively.⁶ It may be concluded that mumps is the cause of approximately 10% of all the cases of aseptic meningitis of obscure etiology, the exact rate varying with the season, locale, and year. Some clinicians have the distinct impression that mumps meningitis without parotitis seems to occur more frequently during the summer months.⁸ Unless definite clinical involvement of other organs is present, a diagnosis of mumps meningitis can be made only by laboratory techniques.

Coxsackie Virus Infections: In 1948 Dall-dorf and Sickles⁹ reported the isolation of

the Cocksackie virus. Much information has accumulated regarding these agents and the illnesses they produce. The Cocksackie viruses are almost universal in distribution and man appears to be the primary natural host. Although human infection is exceedingly common, especially in childhood, overt manifestations of disease as with poliovirus probably occurs in only a small proportion. The Cocksackie virus may persist in the feces of the infected individual for weeks but may be found in the throat for only a brief period of time and rarely in the blood. Occasionally it has been possible to demonstrate the agent in affected muscle.

Twenty-four types of the Cocksackie virus are now recognized. They are divisible into two groups, A and B, by the nature of the disease and by the pathologic changes they induce in suckling mice. Nineteen types are included in Group A and five in Group B. Unfortunately only six types, including A-9 and all five types of Group B, regularly produce cytopathogenic changes in monkey kidney tissue cultures. Neutralizing antibodies are in general type-specific and there is no common complement-fixing antigen. Thus, serologic procedures for the diagnosis of human infections are of little practical use since it would be necessary to perform complement-fixing studies against 24 different Cocksackie antigens and the even more laborious task of doing neutralization tests in suckling mice. For these reasons the diagnosis depends on viral isolation with confirmation by serologic studies for the homologous type only. Cocksackie viruses have frequently been recovered both alone and co-existing with poliovirus in individuals ill during poliomyelitis epidemics and in addition have been found in healthy individuals as well as those sick with a wide range of clinical illnesses.²⁶ Just what role these viruses may play in the epidemiology of poliomyelitis is not clear. Despite these questions the Cocksackie viruses have been conclusively implicated as a cause of herpangina, pleurodynia, neonatal myocarditis and aseptic meningitis.

Isolation of the agent from the spinal fluid or nervous tissue of the diseased individual and accidental laboratory infection provide strong evidence that Group B Cox-

sackie viruses can produce aseptic meningitis. Several recent studies suggest that Group A Cocksackie viruses may be a cause of aseptic meningitis. Gear and co-workers¹⁰ reported the isolation of Group A viruses from the spinal fluid of six patients with meningoencephalitis. If this finding is confirmed, there will be no reason to doubt the etiologic role of Group A Cocksackie viruses in aseptic meningitis.

The ECHO Viruses: Extensive use of tissue culture techniques in the study of viruses recoverable from human feces, particularly during the poliomyelitis vaccine field trials but also in many different laboratories, has yielded a number of new agents which are cytopathogenic in tissue culture. Originally known as "orphan viruses," they have been grouped together and classified as enteric cytopathogenic human orphan viruses (ECHO)*. Sixteen agents thus far have been included in this group. In 1955 Karzon and co-workers¹¹ studied a summer epidemic of "non-paralytic poliomyelitis" in New York state. All seven of the hospitalized patients as well as several of their family associates were shown to have an ECHO type 6 infection. They also isolated ten such agents from the spinal fluid of patients who became ill during a concurrent generalized outbreak of aseptic meningitis. Other workers who have presented evidence that outbreaks of aseptic meningitis are due to ECHO virus.^{27, 28} In view of this recent information from several sources there can be little doubt of the etiologic relationship between certain of the ECHO viruses and the syndrome of aseptic meningitis. The frequency with which these viruses cause polio-like disease, particularly in non-epidemic circumstances, is as yet undetermined. It seems probable, however, that this group of agents together with the polioviruses, mumps and Cocksackie group will prove to be among the most important causes of aseptic meningitis.

Other Viral Diseases which Produce Aseptic Meningitis: When the virus that produces lymphocytic choriomeningitis

*The National Foundation for Infantile Paralysis, recognizing that the poliomyelitis, Cocksackie, and ECHO viruses all inhabit the alimentary tract as well as share other properties, has changed the name of its Committee on the ECHO Viruses to the Committee on the Enteroviruses.³¹

(LCM) was isolated, it was believed that the etiology of aseptic meningitis had been solved. Indeed, THE STANDARD NOMENCLATURE OF DISEASE listed acute aseptic meningitis and LCM as synonyms, a source of confusion as late as 1942.¹³ Sero-logic surveys indicate that about 11% of persons in the United States have experienced infection with the LCM virus.¹⁴ Ob-vious meningeal involvement must occur in only a small proportion of individuals in-fected, if this figure is an accurate index of the frequency of human infection with this agent. Clinical experience supports this. LCM, at least in the southern portion of this country, is a rare cause of aseptic menin-gitis.⁶ In our experience¹⁵ as well as that of others⁶ this agent has not been isolated from individuals below the age of 10 years with aseptic meningitis.

For several years central nervous system involvement in primary herpes simplex in-fection has been known but was considered to be invariably fatal. However in recent years it has been learned that infection with this agent may be followed by non-fatal meningoencephalitis of a relatively benign nature. This infection also is not a common cause of aseptic meningitis.^{5, 6}

Of the numerous arthropod-borne ence-phalitides only St. Louis, eastern and west-ern equine encephalitis are of importance in the United States. Although each has been primarily a regional problem, there is evidence of spread of these agents to other areas. While infection with the virus of eastern equine encephalitis is usually fol-lowed by a very severe illness, western and St. Louis encephalitis infections may vary

TABLE 1. Clinical Conditions Which May Produce the Aseptic Meningitis Syndrome. Modified from Steig-man. (12)

CLINICAL CONDITIONS WHICH MAY PRODUCE THE ASEPTIC MENINGITIS SYNDROME	
AGENT	DISEASE
A. Infections	Poliomyelitis, Mumps, Herpes
I. Viral	Simplex, Herpes Zoster, Coxsackie B.
a) Man to Man Transmission	Primary Atypical Pneumonia, Infectious Hepatitis, ECHO, Others(?)
b) Rodent to Man Transmission	Lymphocytic Choriomeningitis
c) Arthropod to Man Transmission	Arthropod-Borne Encephalitides Including Eastern, Western Equine and St. Louis
II. Presumed Viral	Infectious Mononucleosis, Infectious Lymphocytosis, Cat Scratch Fever
III. Spirochaetal	Leptospiral Infections, Syphilis
IV. Mycotic	Torulosis
V. Protozoal	Toxoplasmosis
VI. Helminthic	Trichinosis
VII. Bacterial	(1) Tuberculous Meningitis (2) Very Early Bacterial Meningitis (3) Inadequately Treated Purulent Meningitis
B. Postinfectious and Postvaccinal	Measles, Rubella, Varicella, Mumps, Vaccinia, Variola; Post-Rabies and Post-Vaccinia Vaccination, Infectious Neuritis
C. Noninfectious	
I. Meningeal Reaction from Neighboring Lesions	Sinusitis, Mastoiditis and Other Abscesses, Infiltrates, Hematomas, Thromboses in or Adjacent to CNS.
II. Toxins and Irritants	Lead, Arsenic, Bacterial, Intrathecal Injections Air, Serums, Anti-biotics, Contrast Media
III. Allergy	
a) Medications	Serum Sickness Including That Due to Antibiotics
b) Prophylactic Injections	See B.
c) Other Allergens (?)	Seen Rarely in Association with Urticaria and Arthralgias
d) Tuberculosis	Presumably a Sensitivity Reaction Without Actual Infection of the Meninges

from clinically inapparent ones to serious meningoencephalitis. Olitzky and Casals²⁹ have published a comprehensive review of the arthropod-borne encephalitides.

The encephalomyocarditis virus may produce aseptic meningitis in man but the frequency is unknown at the present time. Aseptic meningitis may occasionally result from infections due to herpes zoster,¹⁶ infectious hepatitis,¹⁷ and lymphogranuloma venereum.¹⁸

Certain diseases of presumed viral etiology may be associated with the syndrome of aseptic meningitis and include primary atypical pneumonia,¹⁹ infectious mononucleosis,²⁰ infectious lymphocytosis²¹, and cat scratch disease.²²

Although there are numerous other causes of aseptic meningitis (Table 1), purulent meningitis suppressed by inadequate antibacterial therapy and incipient tuberculous meningitis are the other most significant infectious causes of aseptic meningitis. This is especially true in childhood. When an immediate decision must be made as to which of these is present or in distinguishing these from viral causes of aseptic meningitis, the clinical history as to previous antibiotic therapy or contact with possible tuberculosis is most important. An elevated blood leukocyte count and a lowered spinal fluid sugar content are in favor of purulent or tuberculous meningitis. However, it may be necessary to treat the patient with a presumptive diagnosis of bacterial meningitis for a time until the picture is clear.

Another cause of aseptic meningitis that must be considered, especially in the southern states, is leptospiral infections. These infections accounted for 12 of 158 cases reported by Adair et al,⁷ 12 of 239 cases in the experience of Meyer et al³² and 2 of 60 in another series.¹⁵

Several different serogroups of leptospire may produce aseptic meningitis.³⁰

Experiences Regarding the Etiology of Aseptic Meningitis

Considerable evidence has now accumulated concerning the etiology of aseptic meningitis. Investigations concerning this problem have proceeded in several laboratories, but space does not permit a review of all of

these findings and only those from the experience of a few investigators will be cited. During one year in the Nashville, Tennessee area 60 cases of aseptic meningitis were studied. Of this number 16 were found by laboratory study to be due to non-paralytic poliomyelitis, 8 mumps, 2 leptospirosis, and 34 were classified at that time as due to unknown cause; however, it is likely that many of these were due to ECHO or Coxsackie virus infections but laboratory techniques for the study of these infections were not available at that time.¹⁵

In most studies a specific diagnosis can be arrived at in a larger proportion of patients with paralytic disease than in those with a clinical picture of aseptic meningitis or encephalitis.³²

In Table 2 the results of stool isolation studies from patients with paralytic disease and with aseptic meningitis studied in Toronto and Stockholm are shown.^{33, 34} It can be seen that in paralytic poliomyelitis occurring in Toronto poliovirus alone could be isolated from the stool in 83% of the cases. However, in Stockholm poliovirus was isolated from only 66% of the paralytic cases. In the Toronto study it was not uncommon to isolate poliovirus in association with Coxsackie or other viruses from the stools. Of those with aseptic meningitis poliovirus was isolated from 19% of the Toronto patients and 36% of those in Stockholm. It is readily apparent that Coxsackie and ECHO viruses are important etiologic agents of aseptic meningitis in these two series.

A marked variation in the types of virus isolated during different years in a particular community has been noted.²⁵ Recent evidence indicates that a paralytic disease resembling poliomyelitis may apparently be due to ECHO and Coxsackie virus infections.²⁵ Usually the weakness these patients manifest is relatively mild and patchy in distribution but more severe and persistent involvement may occur.²⁶ However, those with only mild weakness have usually continued to feel debilitated for many months and are not capable of returning to work or to school for prolonged periods.

Summary

Only a few years ago most cases of aseptic

TABLE 2. Virus Isolations from Stools of Patients with Poliomyelitis. Modified from Rhodes and Beale (27) and Svedmyr (33).

TOTAL NO.	TORONTO*		STOCKHOLM**		TORONTO*		STOCKHOLM**	
	71		402		96		343	
	NO.	%	NO.	%	NO.	%	NO.	%
Poliovirus Only	59	83.1	264	65.7	11	11.5	125	36.4
Poliovirus + Coxsackie A	5	7			2	2.1		
Poliovirus + Coxsackie B	0				5	5.2		
Total Poliovirus	64	90.1	264	65.7	18	18.8	125	36.4
Coxsackie A Only	0		0		6	6.2	2	0.6
Coxsackie B Only	0		0		18	18.8	3	0.9
Total Coxsackie A	5	7	0		8	8.3	2	0.6
Total Coxsackie B	0		0		23	24.0	3	0.9
Neg. for Poliovirus or Coxsackie	7	9.9			43	44.8		
ECHO	0		2	0.5	11	11.5	42	12.2
Adenovirus			1	0.2	0		0	0

*Rhodes & Beale: reported 4/57

**Svedmyr: reported 4/57

meningitis were considered to be examples of non-paralytic poliomyelitis. The development of newer diagnostic laboratory approaches, particularly tissue culture techniques, and further knowledge of the epidemiology of these diseases have made it clear that there are many other causes of aseptic meningitis. Infections of a viral etiology are by far the most common and include those due to poliovirus, mumps, ECHO and Coxsackie viruses, as well as those due to as yet unidentified viral agents.

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800 N. E. 13th Street, Oklahoma City, Oklahoma

Primary Squamous Cell Carcinoma of the **CORNEAL-SCLERAL LIMBUS**

ROBERT T. DOOLEY, M.D.

Malignant lesions involving the cornea of the eye are of some interest due to their rarity. The lesion can arise from the bulbar or palpebral conjunctiva and rarely from the cornea itself but more commonly arises from the corneal-scleral limbus.¹ These epitheliomas usually arise from the superficial structures normally visible between the eyelids and are influenced by such external factors as dust, dryness and ultraviolet radiation.

Case Report

An 83 year old retired white male farmer had noticed an enlarging growth on his right eye for four or five years. For about six months he had been unable to discern objects with this eye. The eye had been painful at times but one week prior to being seen he had suffered an acute attack of pain associated with marked redness and lachrimation. He was seen by Doctor J. W. Parrish of Seminole, Oklahoma who treated him symptomatically and then referred him to the University of Oklahoma Hospitals where he was first seen in the Out-Patient Department on 2-21-58. Examination of the eye revealed a flat, dull, grayish-pink mass which covered the entire cornea and limbus except for a small crescent-shaped area of the temporal portion. Many new conjunctival vessels supplied the mass. The conjunctiva and the lid margins were inflamed and the eye was painful on pressure. The remaining portion of the cornea was cloudy. Coincidental physical findings were an immature senile cataract of the left eye, a non-ulcerating basal cell carcinoma of the skin of the left cheek and a hard, slightly moveable mass just posterior to the angle of the mandible on the left side which was nontender and not fixed to the overlying skin. Clinically this mass was thought to represent a mixed tumor of the parotid gland. A biopsy of the corneal lesion revealed sheets of epithelial cells which varied considerably

THE AUTHOR

Robert T. Dooley, M.D. graduated from the University of Oklahoma School of Medicine in 1958. He is now an intern at the United States Naval Hospital, Chelsea, Massachusetts.

in size and shape with many mitotic figures and was reported as a squamous cell carcinoma. On 3-14-58, under local anesthesia, the right eye was enucleated without difficulty. On examination of the specimen the mass previously described was noted to extend into the anterior chamber. The mass measured 1.8 cm. in diameter and 0.3 cm. in depth. On microscopic examination the surface epithelium of the cornea contained a focal area of epithelium showing moderate acanthosis consisting of atypical, large, hyperchromatic cells with irregular alignment. Beneath this area there were numerous irregular communicating strands of neoplastic cells. These cells were moderately anaplastic squamous epithelial cells exhibiting individual keratinization as well as typical pearl formation. The neoplastic tissue was accompanied by a moderate amount of myxomatous connective tissue stroma. The anaplastic tissue was fairly well limited to the cornea and anterior chamber but did not extend to the surrounding structures such as the bulbar conjunctiva, iris or ciliary body.

Discussion

The majority of reports in the literature have dealt with one or two cases, but Ash and Wilder² at the Armed Forces Institute of Pathology reported 93 cases of epithelial tumors involving the limbus. Of these patients, 83 were white and 10 were Negro. There were 78 males and 15 females. The highest incidence occurred in patients between the ages of 50 and 80 years. Seventeen of the 93 cases presented premalignant lesions (13 had leukoplakia and four had Bowen's epithelioma) and it is of some interest that 47 of the remaining 76 cases

showed similar changes at the periphery of the malignant lesions. Of the 48 carcinomas, 39 were of the squamous cell type, eight were papillary squamous cell, and there was only one basal cell lesion. Ash³ subsequently reported on 68 squamous cell and three basal cell carcinomas of the limbus. Reese¹ reported the ratio of squamous cell to basal cell lesions as at least 10:1.

Reese¹ describes the gross appearance of the squamous cell carcinoma as a localized and elevated mass with a rather characteristic white appearance due to keratin content, which, when marked, gives the tumor a striking pearly-white color. Large nutrient conjunctival vessels are seen coursing toward the lesion. There is only a slight tendency for this tumor to extend deeply since resistance to its growth is encountered at Bowman's membrane. When the substantia propria is involved some resistance is set up by a barrier of embryonic connective tissue around the invading cells. Extension occurs by way of the lymphatic spaces between the layers of the substantia propria and thence to the canal of Schlemm. This tumor may ulcerate and become secondarily infected.

Basal cell epitheliomas have less predilection for the limbus. This lesion is flatter and spreads out more than does the squamous cell lesion. At the limbus this epithelioma appears as either a pink fleshy elevation or as a small gray raised area. As it spreads over the cornea it becomes vascularized and papillary in appearance. The extension of this tumor likewise is superficial across the cornea since Bowman's membrane offers resistance to its penetration into the stroma.

Other tumors may involve the cornea. Epibulbar sarcoma has some predilection for the limbus. A rather comprehensive list of tumors involving the cornea is that compiled by Thomas⁴ which includes congenital,

implantation and lymph cysts; lymphangioma; dermoid; teratoma; fibroma; ectopic lacrimal gland; granuloma; adenoma; nevus; pigmented tumors, and tumors associated with generalized diseases such as neurofibromatosis, Gaucher's disease and the lymphomas.

An adequate biopsy must be obtained before any type of treatment is contemplated. Formerly the standard treatment for epitheliomas of whatever size was enucleation. This radical approach seems no longer tenable unless the tumor has been neglected and has involved deeper structures of the eye. Current therapy for those tumors involving only the superficial structures of the eye is wide local excision. Removal of the tumor should include as much of the underlying stroma as can be obtained without incurring the danger of subsequent perforation. The site of removal should then be subjected to irradiation. Both squamous cell and basal cell carcinomas involving the cornea are quite sensitive to radiation and relatively small doses are effective in reducing the danger of recurrence.⁴

Summary

A case of squamous cell carcinoma arising from the conjunctiva and involving the cornea is presented. Gross and microscopic pathology is described. The literature is briefly reviewed and the treatment is discussed.

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Encephalitis Accompanying Attenuated Rubeola

HARRIS D. RILEY, Jr.*

American Journal Diseases of Children 95: 270, March 1958

The value of gamma globulin in preventing or modifying measles has been clearly demonstrated. There is also considerable evidence to indicate that modified rubeola is a comparatively mild disease usually unaccompanied by significant complications. Only three cases of encephalitis following measles attenuated by gamma globulin have appeared in the literature. Two cases of encephalitis complicating rubeola attenuated by gamma globulin are reported. One, that of a child who died on the 36th hospital day with empyema, bronchopneumonia, perforation of the esophagus, and encephalitis, is apparently the first reported case with post-mortem confirmation of encephalitis, complication modified measles. The relationship of gastrointestinal lesions and central nervous system disease is reviewed.

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Objective Evaluation of Patients with Rheumatic Diseases IV. Comparison of the Diphenylamine Reaction (DPA) with Serum Glycoprotein And Seromucoid Levels

SHETLAR, M. R.* and PAYNE, R. W.**

J. Laboratory and Clinical Medicine 51: 588-591, 1958

The diphenylamine reaction of serum is currently assumed to be caused by the sialic acid found in the seromucoid fraction. It has been reported to have value as a means of evaluating clinical activity in rheumatic fever and rheumatoid arthritis. In this study, the diphenylamine reaction was compared with serum glycoprotein and with seromucoid determinations as a method for estimating the inflammatory activity in patients with rheumatoid arthritis. Inflammatory activity was graded clinically as previously described (J. Lab. Clin. Med. 48, 194, 1956). A significant correlation was found between DPA and clinical activity (correlation coefficient, 0.588). However, the correlation coefficient between serum glycoprotein or seromucoid hexose and clinical activity were much larger ($r = .891$ for glycoprotein; $r = .740$ for seromucoid).

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Olfactory Perception Thresholds in Hypogonadal Women: Changes Accompanying Administration of Androgen and Estrogen

ROBERT A. SCHNEIDER,* J. PAUL COSTILOE,** R. PALMER HOWARD,*** and STEWART WOLF****

Journal of Clinical Endocrinology and Metabolism, 18: 379-390, April, 1958

Olfactory perception thresholds and nasal mucous membrane function were measured over prolonged periods in three hypogonadal females; in one of these subjects nitrogen and sodium balance were also studied. Observations were made during periods of estrogen therapy (equilin sulfate, Premarin, estradiol-17 alpha, 3-monosulfate), of androgen therapy (testosterone propionate and nortestosterone), and of placebo administration. Estrogenic and androgenic effects were ascertained by measuring urinary gonadotropin and 17-ketosteroid excretions, respectively. Olfactory acuity during periods of placebo administration was not significantly different from acuity measured over long periods in six healthy women with normal gonadal function, but in the hypogonadal group there was a tendency toward pallor and swelling of the nasal membranes. Olfactory acuity increased significantly in two hypogonadal subjects while they were receiving estrogens, but this was not associated with significant changes in nasal function; throughout the study, their olfactory threshold values and corresponding urinary gonadotropin levels were correlated positively. In contrast, olfactory acuity decreased significantly in the third hypogonadal subject while she was receiving androgens, and there was a positive correlation between acuity and 17-ketosteroid excretion. During androgen therapy, this subject showed a modest increase in nasal swelling and secretions which might have contributed to the observed decrease in olfactory acuity. There was a positive correlation between nitrogen excretion and olfactory acuity, but there was no such correlation between sodium excretion and acuity. The mechanisms by which estrogens improve and androgens depress olfactory acuity in hypogonadal women remain obscure. However, there is a suggestion that local changes in the nasal membranes may contribute to these differences.

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Felty's Syndrome

W. K. ISHMAEL.*

From *Progress in Arthritis* 86-97, Grune & Stratton, Inc., 1958

1. The triad of adult rheumatoid arthritis, splenomegaly, and neutrophilic neutropenia, known as "Felty's syndrome," occurs but rarely. Its nosologic significance is unknown at this time, but from the standpoint of treatment, this syndrome is a separate entity.

2. It is proposed that if Felty's syndrome is a therapeutically distinct disease, its concept should be broadened to include thrombocytopenic purpura and primary "splenic" anemia, as well as neutropenia or any combination of these three cytopenias, whether or not the spleen is palpably enlarged.

3. Likewise, there is good evidence to show that systemic lupus erythematosus should be included as one of the diagnostic criteria of Felty's syndrome. There is also a possibility that thrombotic thrombocytopenic purpura, systemic scleroderma, polyarteritis

nodosa, and dermatomyositis should also be considered as one of the diagnostic criteria.

4. Leukemia, lymphosarcoma, infections, cirrhosis, amyloid disease, and agranulocytosis should always be excluded in patients with a collagen disorder and pancytopenia, as they are known to produce a similar picture.

5. Splenectomy is the treatment of choice in Felty's syndrome unless conditions exist in the individual concerned which contraindicate this surgical procedure. There is evidence to show that this definitive treatment should not be unduly delayed.

6. Whole blood transfusions, chloroquine and hydroxychloroquine, antimicrobial agents, and the glucocorticoids have a place in the management of certain situations encountered in this disease.

7. It is hoped that consideration of Felty's syndrome will not be discarded until the casual interrelationship of disorders of the reticuloendothelial and ground substance systems has been resolved.

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BOOK REVIEW

In this section devoted to the University Medical Center, in addition to the features that have appeared before, we will review books written by members of the staff. In the interest of objectivity, it is our plan to present reviews which have appeared in other journals.

The following review is quoted from the *British Journal, Lancet*, 1: 821, April 20, 1957. One of the authors of this book is Philip C. Johnson, Chief of the Radioisotope Service, VA Hospital, and Assistant Professor of Medicine, University of Oklahoma School of Medicine.

CLINICAL USE OF RADIOISOTOPES

William H. Beierwaltes, M.D., coordinator, clinical radio-isotope unit, University Hospital, Ann Arbor; Philip C. Johnson, M.D., chief, radio-isotope unit, Veterans Administration Hospital, University of Oklahoma; Arthur J. Solari, M.S., radiation physicist for clinical radio-isotope unit and Kresge research isotope unit, University Hospital, Ann Arbor. Philadelphia and London: W. B. Saunders. 1957. Pp. 456.

Written primarily for the doctor taking part in the development of a clinical radio-isotope unit, this book gives a particularly clear account of the principles underlying the use and measurement of radioactive materials, which should be very valuable to the medical graduate, who may have only a very superficial knowledge of nuclear physics.

Most attention on the clinical side is rightly devoted to thyroid disorders and radioactive iodine, since this is undoubtedly the most important and popular use of an isotope in hospital. Practical therapeutic aspects are well covered and for the most part the advantages and limitations of the new methods are adequately presented. Little is said about the more fundamental aspects of the nature of the action of radiation on the thyroid cells, and recent work on carcinoma of the thyroid in children resulting from irradiation of the neck is not included. In the chapter on diagnostic procedures no mention is made of the possible use of the short half-life ^{132}I , which considerably reduces the exposure of the gland to radiation.

After turning to the use of other radioactive isotopes in clinical investigation and treatment, the book deals with the biological effects of radiation. It concludes with the practical details of measuring radioactivity, and it even goes into the costs of investigations and the charges to be made to patients. In an American book the regulations regarding the supply of isotopes do not, of course, apply to laboratories in this country.

Doctors beginning work in a department using radioactive materials in clinical investigation will certainly find much to help them in this book.

The University of Oklahoma Graduate College

PHILIP E. SMITH, Sc.D.

Associate Dean, Graduate College

The function of the Graduate College within the University of Oklahoma Medical Center is to offer courses of study and opportunities for creative research leading to a Master of Science and/or Doctor of Philosophy degree. This function is separate and distinct from that of the Office of Post-graduate Medical Education, which is primarily concerned with refresher courses covering recent techniques and advances in various fields of medicine, and is specifically designed for practicing physicians. In the Graduate College, Medical Center, formal course work and research programs are pursued by qualified individuals who are interested in advanced training in medical allied fields.

A graduate program in connection with the School of Medicine has been in existence for a number of years. Master of Science degrees were being conferred by basic medical science departments prior to the transfer of those departments from the Norman campus to Oklahoma City (1928). In 1947 a separate graduate office was established in the Medical Center under the direction of an Associate Dean responsible to the Dean of the Graduate College of the University of Oklahoma, who is located on the Norman campus. The first designated Associate Dean of the Graduate College was Arthur A. Hellbaum, Ph.D., M.D., who served between the years 1947 and 1953. He was followed by James W. H. Smith, M.D., who directed the program between the

years 1953-1956. The present Associate Dean has served since 1956.

The Graduate Faculty of the Medical Center as appointed by the Graduate Council of the University of Oklahoma, is constituted as follows: (1) the faculty in the basic medical science departments, (2) clinical faculty members who hold joint appointments in a basic medical science department, and (3) certain members of the Oklahoma Medical Research Foundation (notably in Biochemistry). This totals about 50 members.

Currently, degree programs exist in the basic medical science departments only (Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology, Physiology, and Preventive Medicine and Public Health), although it is possible that within a short time certain of the clinical departments may make formal application to institute training for Master of Science degrees.

An important step taken in recent years which brought breadth and stature to the graduate program was the initiation in 1951 of training for the Doctor of Philosophy in Medical Science degree. It is of interest to note that with the inception of the Ph.D. program, the special courses and guidance of research projects were absorbed with existing faculty, i.e., there was no additional staff added to the Medical School faculty as a direct result of the graduate program. As

an outgrowth of the broad inter-departmental training offered for the Ph.D. in Medical Science, a need was felt for a degree program permitting more specialized training in individual departments. The first departments approved (1956) to offer such Ph.D. degrees were Biochemistry, and Preventive Medicine and Public Health.

Although the entrance grade requirement of students who wish to pursue a graduate program must be at least a "B," it is of interest to note that the enrollment has averaged between 40 and 50 students each semester. This number approximates the upper limit of students that can be absorbed into the existing facilities of the basic medical science departments. With this smaller number of students, each individual can work within the department of his major interest with adequate research facilities and maximum personal contact with his professors. Most students are research or teaching assistants, and as such constitute an integral part of the staff. The graduate faculty feels that a position of responsibility is an important facet of graduate training.

When the Ph.D. degree program was originally petitioned for, it was pointed out that there was a great need to train future basic medical science faculty and medically oriented research scientists. As an indication of how well the aims have been carried out, it should be noted that to date there have been 17 graduates who have received the Ph.D. degree in Medical Science since the first group graduated in 1955. Of this number, five have subsequently completed the M.D. degree, or are currently enrolled in medical schools under this program; six hold faculty appointments in Schools of Medicine in Oklahoma, Arkansas, Tennessee and Nebraska; two hold positions in industry (pharmaceutical houses); three hold primary positions in Research Foundations (Oklahoma and Massachusetts), and one holds a position of teaching and research in a Liberal Arts College. During 1958 (June and August Commencements) it is expected that 12 Ph.D. degrees and eight M.S. degrees will be conferred upon students from the Medical Center.

Recent awardees of the Ph.D. degree from

the University of Oklahoma School of Medicine and the Title of their dissertation include:

Name	Alfonso Joseph Strano
Department	Pathology
Title	"Studies on the Survival, Growth, and Differentiation of Embryonic Tissue Homotransplants"

Name	Charles Henry Farr
Department	Pharmacology
Title	"A Study of The 'Artificially-Induced' and 'Natural' Lupus Erythematosus Cell Phenomena"

Name	Vijayanand Sadanand Raut
Department	Biochemistry
Title	"The Reduction of C ₁₉ Keto-Steroids by Guinea Pig Tissue Homogenates"

Name	Kenneth Charles Back
Department	Pharmacology
Title	"A Study of the Depressor Aftereffects of Norepinephrine"

Name	Thomas Edward Wilson
Department	Microbiology
Title	"Factors Influencing Chloramphenicol Resistance of Micrococcus Pyogenes Var. Aureus"

Name	Robert Edward Bowling
Department	Microbiology
Title	"Permeability Alterations Associated With Chloramphenicol Resistance in Micrococcus Pyogenes var. Aureus"

The complete dissertations are available in the Medical School Library.

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PRESIDENT'S LETTER



How often each day do you advise a patient to get more exercise, diversion and relaxation? How often has it occurred to you that you could use a copy of that same prescription?

It is all too easy for the physician to let the working hours of the day gradually increase until there is no time left except for the hurried meal and few hours sleep. With this state of being comes the loss of the friendly smile and the distasteful shortness of temper and tolerance. You may not realize what is happening to you but your patients and family do.

Technical skills in the practice of medicine are indispensable but much of the art of healing lies in the warm smile and kind sympathetic attitude. Scientific ability can go wanting if you as a doctor are not able to project cheerfulness and warm confidence to your distressed patients.

Let us take stock of ourselves and see how well we are maintaining our own physical and mental health. The days that pass without physical exercise or diversion are robbing us of the good health so necessary for our patients, our loved ones, and our own well being.

Summer is such a wonderful season of the year. Each day is an invitation to enjoy the beauties and wonders of the world so freely provided for us. Let us resolve to get out-of-doors, refresh our minds and bodies and return to the sick an example of our own prescription.

A handwritten signature in dark ink, reading "E. C. Mohler, M.D." with a stylized flourish at the end.

President

Special Articles

This is the last of a series of articles designed to acquaint the medical profession with its role in the state civil defense program.

A civil defense organization—federal, state, or local—cannot be operational and capable of functioning during times of disaster without the active participation of medical doctors.

Medical doctors serve two distinct purposes in relation to local civil defense organizations. (1) Professional capabilities resulting from their training and practice, and (2) Community respect or leadership qualities.

It is common knowledge—and common sense—that persons with professional standings, such as doctors of medicine, lawyers, and other recognized professions, are pointed out as community leaders. Exceptions are rarities.

For civil defense to be effective and active on all levels, this leadership quality is necessary. Oklahoma state civil defense files reveal that in cities and towns where members of the medical profession are active in local civil defense organization and training, the local CD program is making steady progress. And in towns where no member of the medical profession is active in CD planning—the program is at a virtual standstill. There are exceptions—but they are few.

From the professional standpoint, doctors of medicine are as important to civil defense as civil defense is important to the state and to the nation.

The main theme of civil defense is to relieve suffering, by proper treatment, caused by disasters—either natural or man made. To accomplish this purpose definitely requires doctors of medicine.

Like other major phases of civil defense, the health service must be an organized effort by all doctors in a community. It cannot be accomplished by a haphazard plan of operation to be put into effect in the event of a disaster.

WHAT *Is Civil Defense and* WHO *Is Responsible?*

JERRY RAGSDALE

Director of Public Relations

Oklahoma Civil Defense

Before a health service or medical disaster plan can be operational, it must be carefully planned, organized, and finally tested—for any possible bugs. The local civil defense plan must be known to all doctors and not just a few. And the medical plan must be kept current. New doctors moving into a community must receive a copy of the disaster plan. One uninformed person can cause havoc, regardless of the best laid, or most elaborate plans.

As medical plans are completed, they must become a part of the overall community civil defense plan. The medical service must know the plans of other services, and other services should be familiar with medical plans. An old cliché, "Always let the left hand know what the right hand is doing," is an appropriate description.

As medical plans are being prepared, a limited training program should be conducted. Physicians presently serving as advisors to the federal civil defense administration and state civil defense report that many medical doctors will require several hours of briefing and specialized lectures, or training, if they are to perform the necessary duties, during times of a large scale disaster, in an efficient

manner. This necessary training could be conducted as plans are being formulated.

Reports from members of the Oklahoma Medical Association to Oklahoma Civil Defense indicate that many physicians do not care for injuries in their normal every-day practice; and, therefore, there is a need for training in what civil defense terms "Emergency Medical Treatment."

Other findings reveal that many physicians are not familiar with "casualty sorting." Proper and prompt sorting of injured victims can be responsible for the saving of additional lives. Suggested priority schedules are listed in the civil defense publication, "Emergency Medical Treatment." Special courses in Mass Casualty Handling are conducted at several hospitals, including Walter Reed Hospital.

Disaster planning on local levels, emergency medical treatment, and casualty sorting are three of the major medical problems confronting civil defense today. They must be accomplished on all levels of operation.

In setting up training and preparing medi-

cal disaster plans, the responsible persons should always include related fields such as nurses, laboratory technicians, and other specialists associated with the medical profession.

This is the final article in the three-article series regarding the civil defense program in Oklahoma. The writer is aware that many questions are unanswered—and that the full story of civil defense is incomplete.

All civil defense publications describing the health service have been mailed to county and city civil defense directors, and doctors can obtain copies from them. If they are not available on local levels, the requests may be forwarded to OKLAHOMA CIVIL DEFENSE, P.O. Box 3365, OKLAHOMA CITY 5, OKLAHOMA. If you do not know the name of your local CD director, write the same address.

If you are not active in your local civil defense program—chances are good that you do not have an effective and workable civil defense or disaster organization in your hometown.

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The Advantages of Private Medical Care

ANN GOULD, Woodward, Oklahoma

Carl Sandburg wrote a poem entitled "Freedom is a Habit" in which he stated that men do not realize they have freedom until it is gone. We in America are especially proud of our heritage. Such documents as the Declaration of Independence, the Constitution, and the Bill of Rights are the foundations of our way of life.

The freedoms that we are privileged to have are evident as we carry out our daily activities. Among these are the freedoms of speech, religion, press, assembly, and trial by jury. Another freedom that is not usually considered is freedom of choice. This freedom of choice is one of the most important advantages of private medical care.

When a person becomes ill he goes to his physician, one whom he has selected as being best qualified to meet his particular needs. The patient knows that he is going to receive the best service possible from that physician. If hospitalization is required, the patient selects the hospital. The physician feels a personal concern for his patient. From the time the patient becomes ill till the time of his recovery, he receives the best medical care possible while preserving the physician-patient relationship. All of this is possible because of the private medical care program.

Americans are inclined to be boastful about their high standard of living which is created by the keen spirit of competition present in this country. Since the United States has military installations scattered over the face of this globe, many Americans have an opportunity to live in other countries. Not only do the servicemen have the opportunity to travel but many are joined by their wives and children.

When my father was stationed in England during the Korean Conflict, the other members of the family joined him. While there we had the opportunity to see the National Health Service, which is England's free medical care program, in action. The lady who worked for us was having difficulty with her hearing. The doctor she was registered with had neither the time nor the facilities at his disposal to fully investigate her hearing defect. She wanted to see a specialist but the only way she could do this was to be sent by the local doctor in the village. The local doctor thought that she was just imagining her difficulty and was only trying to take advantage of the free medical treatment. Finally after many weeks of worry and distress she was permitted to see the specialist and to receive the necessary treatment.

Actually the medical treatment is not free. The National Health Service is supported by funds from taxation. It is a plan under which the middle and upper classes help subsidize medical care for the low income groups.

This program provides an "assembly line" type of medical care. The family doctors, confined to a treadmill of daily calls and office hours, are losing their incentive and enthusiasm which access to diagnostic facilities and consultant opinion would provide.

The patient suffers because the family doctor and the specialist do not have the opportunity to work together. Therefore, they are not able to get a complete picture of the patient's condition. Because of this it is impossible to maintain a continuity of diagnosis, treatment, and after-care essential to restore patients to the highest level of health.

Instead of regarding the doctor as a friend and medical advisor, the patients tend to regard him as an "official" whose main duties are to satisfy demands for prescriptions and to make arrangements for X-rays and laboratory tests. This attitude destroys any beneficial doctor-patient relationships that have been formed and lowers the doctor's morale.

There is much public abuse of the National Health Service. The attitude of many people is that they deserve to get their money's worth and so they proceed to do this by taking up as much of the doctor's time as possible to the harm of someone waiting who may really need attention.

Eight years of experience in Britain have shown beyond a doubt that the practice of medicine by doctors and the control of medicine by politicians are incompatible.

There are four economic levels of people in the United States:

(1) Those who are financially well enough off to care for themselves under any conditions no matter how prolonged or costly the illness may be.

(2) Those who are financially well enough off to care for themselves under all conditions except for prolonged or costly illness.

(3) Those who can care for themselves under ordinary circumstances, but find it difficult to meet the cost of any illness.

(4) Those who are wholly dependent on the public welfare for even their food, clothing, and housing.

Those people in the first group are able at all times to meet their needs. They do not need a free medical care program. The indigent who compose the fourth group are dependent at all times upon the public welfare. County medical societies, in cooperation with state and county authorities, are taking an active part in providing medical care for indigent citizens. No program of health insurance is practical for this group since they are unable to purchase it. The American Medical Association believes that direct payment at the time of illness for this group is the most practicable and economic approach.

However, for those who are able to care

for themselves under all conditions except prolonged or costly illness and for the medically indigent—those who cannot afford any medical treatment at all—some form of assistance is needed. This assistance is available in the form of voluntary medical care insurance of various types and of group hospitalization plans. These types of insurance provide funds to help meet medical costs.

Other types of protection which provide funds to pay medical bills include workmen's compensation, life insurance, personal accident insurance, accidental death and dismemberment, and liability insurance. In addition, various governmental programs provide for the military and their dependents, veterans, and persons in public institutions, among others.

The great majority of American people do want to pay their own way. Having the individual share in the cost of his illness prevents unnecessarily long hospital stays and abuses of the doctor's time.

Another aspect of private medical care is the advances and improvements that have been made in the field of medicine. With medical care in the hands of the medical profession, research is stimulated and more interest is shown by doctors in the better methods and techniques that have been developed rather than would be shown if the government controlled medicine.

Under private medical care the physician-patient relationship has been preserved, and the high standards for which the medical profession is noted are continued.

It has not been established by any available evidence that changing from private medical care to socialized medical care would in any way lower sickness and death rates.

America has always been noted for being a democratic nation. We have fought a Revolutionary War, a Civil War, two World Wars, and a Korean Conflict to prevent tyrannies from being formed. Are we to become victims of a tyranny which dictates the form of medical care we are to receive? We are proud of our freedom to decide for ourselves what we want to do. Socialism is

Continued on page 438

Medical News

Revised Hill-Burton Plan Announced

G. F. Mathews, M.D., Commissioner of Health, State Agency for the Federal-aid Hospital and Medical Facilities Construction Program (Hill-Burton), announced completion of the Revised State Plan for the fiscal year 1958-59. Action on formal adoption of the State Plan was taken by the State Hospital Advisory Council at a called meeting held at the State Department of Health offices on June 8, 1958.

The plan consists of an inventory of all existing facilities covered in the Hill-Burton Act, Public Law 725, 79th Congress and a program of construction designed to fulfill the unmet need for general, mental, tuberculosis and chronic disease hospitals, diagnostic and treatment centers, public health centers, rehabilitation centers and nursing homes. An annual revision is required and must be submitted to the Surgeon General, Public Health Service, for further and final approval in order for the State of Oklahoma to qualify for participation in the Federal program.

Essential elements of the State Plan, including the Methods of Administration of the State program, remain the same as in recent years with the exception of statistical data and hospital area priorities which must be altered annually to conform with changing conditions effecting bed need and utilization throughout the State.

A recent survey conducted by the Hospital

Division, State Department of Health, concerning hospital and related health facilities in Oklahoma during 1957, is shown on this page.

The Construction Schedule for additional beds and facilities which may be constructed under the Hill-Burton program will be developed within the next few weeks and presented to the Hospital Advisory Council for their consideration and action. Qualifying projects will be placed on the schedule in relative priority order, however, the actual number of projects that can be picked up during 1958-59 depends upon the amount of funds appropriated by the present Congress.

This year is the earliest that the State Plan has been completed, demonstrating the efforts of the State Agency to participate in a generalized accelerated program to help alleviate economic conditions. It is expected that appropriations for the forthcoming year will at least equal the present level, however, there seems to be no indication that the Hill-Burton program will be used directly as an anti-recession instrument due to the complexity of hospital design and construction.

Since 1947, nearly \$55 million in construction has been accomplished or is in process. Of this amount, almost \$22 million has been furnished by the federal government.

A copy of the Revised State Plan and other information concerning the Hill-Burton program in Oklahoma will be readily available to any interested person at the State Department of Health offices.

CATEGORY	TOTAL ACCEPTABLE FACILITIES	TOTAL ACCEPTABLE BEDS	TOTAL BED NEED	TOTAL PATIENT DAYS
General Hospitals	165	9,436	10,710	1,950,425
Mental Hospitals	5	8,137	11,215	2,313,028
Tuberculosis Hospitals	5	909	1,190	185,916
Chronic Hospitals	16	591	2,243	125,002
Nursing Homes	104	1,997	8,972	X
Diagnostic Centers	16 Units	None	24 Units	None
Public Health Centers	28 Units	None	67 Units	None
Rehabilitation Centers	7 Units	None	8 Units	None

Doctor Brodie Wins New Distinguished Service Award



Bernard B. Brodie, pictured above, Chief, Laboratory of Chemical Pharmacology, National Heart Institute, National Institutes of Health, was awarded the Distinguished Service Award of the Department of Health, Education, and Welfare by Secretary Marion B. Folsom in ceremonies held April 18. Doctor Brodie was cited for his development of a new field in medicine, Chemical Pharmacology, which through the application of biochemical methods to pharmacology has led to a basic understanding of drug action, a rational approach to drug therapy and the improvement and discovery of many medicinal agents. As a result of Doctor Brodie's personal research and direction and from the influence he has exerted in the field, the medicinal chemist may now tell in advance from a few physical characteristics of a drug, and in most instances just from looking at its structure, whether a drug will be absorbed from the stomach and/or intestines, will be excreted rapidly and whether it will rapidly penetrate the brain.

Doctor Brodie was also cited for his development of a number of therapeutic agents now in wide use and particularly for his development of the leading biochemical theory of the control mechanisms in the brain that integrate the autonomic nervous system into the primitive behavioral patterns. This latter work has led to an understanding of how the tranquilizing drugs affect the brain and has stimulated research in laboratories throughout the world working to uncover a basic understanding of how the brain functions.

The nomination by James Shannon, M.D., Director National Institute of Health, for distinguished service award in the Department of Health, Education and Welfare is as follows:

It is with personal satisfaction that I nominate Doctor Bernard B. Brodie, Chief of the Laboratory of Chemical Pharmacology, National Heart Institute, for a Distinguished Service Award in recognition of his personal value to research and for his responsibility for the development of a new field in medical science, that which has been designated Chemical Pharmacology. I had the pleasure of conducting research with Doctor Brodie before either of us were associated with the National Institutes on Health and invited him to the National Heart Institute in 1950 to head the laboratory of Chemical Pharmacology which was established for his direction. It has proven to be one of the most productive research areas of the NIH and has produced work of such significance and versatility that it has influenced research direction throughout the field of pharmacology and impressively in the fields of physiology, biochemistry and medicine.

Doctor Brodie's intuitive grasp of the importance and implication of basic findings that have been unrecognized by those who work in a single discipline has repeatedly resulted in the early development and application of basic work that might otherwise have been shelved until a more obvious direction in which its value lay was provided. His broad experience along with a productive imagination and breadth of interest permits him to cross disciplined lines and results in a value to research that is

singular in a research world that is increasingly characterized by specialization.

The basis for the field of Chemical Pharmacology was laid during the war years when, as the chemical member of a team of investigators, a systematic approach was made to certain urgent, practical and theoretical problems in the field of chemotherapy of malaria. This work is generally considered to contain classical examples of new approaches to therapy in the field of Pharmacology.

To meet the urgent need to evaluate the comparative value and efficacy of quinine and atabrine in the treatment of malaria, chemical methods for the measurement of these compounds in the body fluids and tissues were developed through a study of their absorption, distribution, excretion and localization in the tissues, and the use of this information to develop rational regimens of therapy. As a result of this work, it was possible to recommend to the Armed Forces as early as 1943 a rational method for the use atabrine and remove quinine as a medicinal of any importance in the treatment of malaria. The use of atabrine resulted in the removal of malaria from the field of tactical or strategic importance in the considerations of the armed forces.

Again, through the chemical work relating to absorption distribution and metabolic transformation of the antimalarials, it was possible to establish research protocols which permitted the serial study of wholly new antimalarial agents under conditions which were safe and which permitted a definitive appraisal of their potentialities on very limited numbers of patients and in a short period of time. The methodology and the experimental approaches evolved as a result of the availability of Doctor Brodie's basic chemical work were utilized not only by the clinicians of the Research Service at Goldwater Memorial Hospital but by all other clinical units in military and civilian installations which were concerned with the search for and appraisals of new antimalarial agents. As a result of the availability of these new tools, it was possible within the short period of two years to establish the currently used chloroquine as a most effective therapeutic agent for the suppres-

sion of malaria and the termination of the clinical attack together with the establishment of the 8-aminoquinolines as potential agents in the cure of vivax malaria.

Appreciating that the general concepts evolved in the malaria program were applicable to the broader field of therapy, Doctor Brodie's work following the war led to the emergence of the wholly new field which is known as Chemical Pharmacology. This emerged in part as the result of Doctor Brodie's personal efforts and in part as the result of his ability to utilize the services of others of diverse backgrounds. There was developed chemical methodology for the estimation of a large number of medicinal agents; an appreciation that the effectiveness or the lack of effectiveness of a therapeutic agent and the limitations and potentials of an active agent depended largely upon its ability to reach the site of action, to attain a given concentration at that site, and the duration which such a concentration is maintained.

At the same time Doctor Brodie was conducting his drug studies, he undertook the systematic study of intravenous anesthetics. He was able to define the factors which limited the utility of such compounds as pentothal and nembutal, and on the basis of these observations reopened the entire question of devising more effective intravenous anesthetics and ones without the peculiar limitations of these two drugs. Some 24 publications during this period were all significant, and some are considered to be classical.

As a result of the scientific content of these publications, Doctor Brodie attained national and international recognition. Such recognition came from discrete scientific data obtained in his systematic studies, but to a larger extent from the establishment of new concepts which now permit a more rational approach to the development and study of medicinal agents. It was quite apparent as result of work during the period from 1946-50 that Doctor Brodie had the capacity to direct the activities of a research team which incorporated organic chemists, pharmacologists, physiologists, and clinicians in the elucidation of theoretical and practical problems of therapy.

Because of his demonstrated ability to direct a multidiscipline approach to basic and medical problems, he was invited to join the Heart Institute. The high productivity and significance of the work becoming a member of the Staff of the Department of Health, Education and Welfare are proof that Doctor Brodie is an individual who has exercised very superior and very unusual leadership in his field of research. He has retained his position of leadership in the field of Clinical Pharmacology. However, his interests have led him far beyond his work in exploring the interaction of drugs with the body.

Below is a memorandum from Doctor James Watt, Director of the Heart Institute, discussing Doctor Brodie's more recent contributions.

Perhaps the most exciting research lead toward an understanding of one of the basic biochemical mechanisms controlling blood pressure and heart rate has developed in the past two years from Doctor Brodie's recognition of the importance and implication of the role of serotonin and norepinephrine in the brain. This has led to the leading biochemical theory of the control mechanism of the neuronal systems in the brain which integrate "automatic" functions and control the cardiovascular system as a subsidiary. This concept involves norepinephrine and serotonin as neurohumoral agents which serve to integrate autonomic, skeletomuscular and psychic functions in the central nervous system. An immediate practical result of Doctor Brodie's work in this area and the work from which his theory was developed has been an understanding of how the tranquilizing drugs affect the body with the result that other laboratories and pharmaceutical companies now have the understanding necessary for refinement and improvement of these drugs so that toxic effects may be avoided and their effectiveness increased. However, of far more importance than a possible explanation of the mechanism of hypertension or a refinement of the tranquilizers, his observations are stimulating research throughout the world by laboratories working to uncover a basic understanding of how the

brain functions. Current studies in his laboratory on compounds which block the enzymes that metabolize serotonin and norepinephrine are leading to an understanding of how these inhibitors are effective in depressed mental conditions.

Doctor Brodie is one of the pioneers in the field of Chemical Pharmacology, an area which tries to explain the drug action and organ function in terms of biochemical events. His work on the distribution and metabolism of drugs has led to many basic pharmacological concepts which are now used in the development of new therapeutic agents and in the establishment of rational regimens of therapy. Because of his work pharmaceutical companies have departments that study this aspect of drugs which enables the Food and Drug Administration to pass on drugs with less personal investigation. Recently his group has elucidated the mechanism whereby drugs cross body membranes and as a result it is no longer necessary to guess whether a potential therapeutic agent will be absorbed from the gut, will penetrate usual cells or will penetrate the blood-brain barrier. Instead the information can be foretold from the physical properties of the drug. Recently his studies on the metabolism of drugs have led into a theory of biochemical evolution.

Doctor Brodie has broad interests and thinks conceptually so that he is able to coordinate the efforts of scientists working in a number of disciplines. His staff of more than 50 people include guest workers from all over the world who have come to work in his laboratory on funds obtained from other than the National Heart Institute. His intuitive ability to select young scientists of unusual promise and then provide them with the proper scientific environment for their development has resulted in the attraction to the National Institutes of Health of a continuous influx of scientific vigor and has contributed greatly to the level and quality of the productivity of his laboratory and that of the National Institutes of Health. His ability to grasp the importance and implication of basic findings that are too often unrecognized by those who work in a single discipline has repeatedly resulted in the early development and

application of basic work that might otherwise have been ignored until a more obvious direction in which its value lay was provided.

It perhaps should be pointed out here that the current winner of the Fleming Award from the Heart Institute, Doctor Sidney Udenfriend, conducted his early research under Doctor Brodie and made his early biochemical studies on serotonin while in the Laboratory of Chemical Pharmacology. What may prove to be the most significant application of Doctor Udenfriend's basic work on serotonin has arisen from Doctor Brodie's early recognition of the possible significance of serotonin as a control mechanism in the brain and the initiation of studies by Doctor Parkhurst Shore in his laboratory which have led to Doctor Brodie's theory of autonomic function, referred to above, as well as the brilliant demonstration of the action mechanism of the tranquilizing drugs.

A topic of current and vital interest to the country, that of training of scientific talent has been a special interest of Doctor Brodie's for some time. It has resulted in a cooperative arrangement with both George Washington Medical School and Georgetown Medical School whereby as Professorial Lecturer Doctor Brodie facilitates the training of a considerable number of his non-professional personnel who are also obtaining graduate degrees in science. The result has been the development and placement in his own laboratory, elsewhere at the National Institutes of Health, in universities and research centers of a number of most promising investigators.

A summary of the major contributions from Doctor Brodie's work and/or from his personal research direction follows. The influence and the stimulation to research exerted by Doctor Brodie's past and present work is too extensive to be measured. However, a partial list of lectures he has given and symposia in which he has participated plus his extensive bibliography of significant observation of the recognition his work has received and the influence which it exerts in the fields of pharmacology, biochemistry, publications are attached to support industry, physiology and medicine.

Discussion of the Major Contributions

1. *Biochemistry of Brain Function*

Studies by Doctor Brodie and his staff have produced evidence that the effects of tranquilizing drugs such as reserpine on the brain are due to their effect on the neuro-hormones serotonin and norepinephrine, which Doctor Brodie has postulated to be the regulators of the sympathetic and parasympathetic nervous systems. He and his staff have shown that reserpine produces its parasympathetic effects by release of serotonin which is normally bound almost completely to acceptor sites in the brain. The increase in free serotonin acts as a stimulant to the parasympathetic nervous system with its accompanying tranquilizing effects. Although reserpine is rapidly destroyed in the body, its beneficial effects are persistent since a considerable period of time is required for serotonin acceptor sites to be reformed in the brain. It appears that the balance between the sympathetic and parasympathetic nervous systems is maintained by the mutual antagonism of serotonin and norepinephrine. This is demonstrated by experimentally producing the tranquilizing effects from injection of chlorpromazine, which blocks the action of norepinephrine with its balancing effect on serotonin.

This experimental evidence obtained by Doctor Brodie is a biochemical parallel of the neuro-physiological observations made over 40 years ago by W. R. Hess that the autonomic, skeletomuscle and psychic functions of the body were integrated by two opposing neuronal systems in the brain stem (trophotropic and ergotropic). Doctor Brodie's work on the brain which provides a biochemical key to the control mechanism of the two systems is stimulating a great deal of research towards a better understanding of both normal and abnormal brain functioning.

2. *Drug Action in Terms of Membrane Permeability and Body Depots*

Doctor Brodie has provided the laws governing the passage of drugs across body membranes. Until his work, little consideration had been given to the problem of how a drug reached its receptor site; the development of drugs was primarily from observation of gross effects. Little consid-

eration of such factors as membrane permeability had been given by pharmacologists because it was believed that transport mechanisms were required to take substrates across cell surfaces and the complexity of the problem discouraged exploration. Operating on the simplifying assumption that drugs cross cell surfaces by virtue of their lipid solubility and that they do not require transport mechanisms, Doctor Brodie has been able to demonstrate that the passage of a drug across a membrane is dependent on its dissociation constant and on the pH at the absorbing surface.

In addition to determining the factors which control the passage of drugs through cellular membranes, Doctor Brodie has learned a great deal about the nature and importance of various body depots which localize drugs in the body. For example, he has shown the importance of neutral fat deposits in determining the duration of action of Pentothal which has permitted its use as a common anesthetic with greater safety and effectiveness. He has shown the existence and significance of the binding of drugs to the nucleus of cells. Doctor Brodie has also demonstrated the binding of specificity drugs with the plasma proteins and the effect of this on the action of the drugs. For example, the high plasma binding of Phenylbutazone explains certain properties of the drug; the binding protects Phenylbutazone against metabolic alterations so that its metabolism is very slow in man which makes it possible to treat arthritic patients with single daily doses in contrast to therapy with salicylate which must be administered several times daily because of its rapid metabolism.

Doctor Brodie's studies on drug action make it possible for the medicinal chemist to tell in advance from a few physical characteristics of a drug, and in most instances just from looking at its structure, whether a drug will be absorbed from the stomach and/or intestines; will be excreted rapidly and whether it will rapidly penetrate the brain. As a result of his work in the field his knowledge is called upon constantly by the major pharmaceutical companies in the United States and Europe which send representatives to confer with him on problems

in drug development.

3. *Drug Metabolism and Enzyme Systems*

Doctor Brodie's methodology and approach to the study of drug metabolism is now used by research workers throughout the world. In addition to initiating this type of study, Doctor Brodie and his staff have provided specific data on the fate in man for a wide variety of drugs including barbituates, anticoagulants, analgesics, anti-rheumatics, and hypotensive agents. Of particular importance, as a result of his studies on drug metabolism, Doctor Brodie has found that many different drugs and other foreign compounds are metabolized in the body by enzymes present in small particles within the cell called microsomes. He has observed that the enzyme system within the microsomes serve a major role in limiting the duration of action of drugs and that they possess an extraordinary degree of non-specificity toward foreign compounds without catalyzing the metabolism of normal body substrates. His observations and the data provided from his laboratory have encouraged further research in his own laboratory and elsewhere on the nature of the microsome enzymes which may actually represent the basic defense mechanism on the part of the body to foreign compounds.

Doctor Brodie's interest in metabolism has caused him to initiate studies in his laboratory to follow the evolutionary development of defense mechanisms toward foreign compounds. To date comparative studies support his belief that many of the systems that metabolize foreign compounds arose in evolution in response to the need to conserve water. Aquatic animals ingest foreign compounds in food, but surrounded by an excess of water and possessing semipermeable gills or skins, easily disposed of the unwanted substances by passive diffusion. Accordingly, fish and certain amphibians do not possess oxidative mechanisms for drug metabolism. The enzyme systems that metabolize foreign compounds are present in higher animals to convert them to forms that the kidney can excrete. Such enzymes seem to appear on the scale of evolution only when animals have emigrated from the sea to land. Some interesting aspects of his studies show at a biochemical

level an apparent haphazard way in which mutations which had survival value for the organism enabled nature to answer the same chemical problem in a number of different ways. For example, insects, reptiles, and toads all convert foreign compounds to excretable products by quite different mechanisms.

4. *Development of Drugs by Doctor Brodie and His Staff Which Have Proven to Be of Clinical Value*

Acetylparaminophenol—a metabolite of acetanilid that is less toxic and equally good as an analgesic. It is now in general clinical use.

Procaine Amide—Developed from a urinary metabolite of procaine. It is generally used to stop heart arrhythmias.

G-28—A metabolite of aphenylbutazone analog. It is the most powerful uricosuric agent developed and will soon appear as an agent for chronic gout.

Phenylbutazone Metabolite—A metabolite of phenylbutazone which has proven to be the most potent of the non-steroid antirheumatic agents. It is now undergoing clinical trial.

Flexin Metabolite—A metabolite of Flexin, a centrally acting muscle relaxant. It is equally potent as Flexin but less toxic and easier to administer. Now undergoing clinical trial, it will soon be generally available for clinical use.

Red River Section of A.A.G.P. To Meet in September

The Fifth Annual meeting of the Red River Section, Oklahoma Chapter, of the American Academy of General Practice will be held at Lake Murray Lodge, Ardmore, on Sunday, September 7, 1958.

Plans for the one day meeting have been announced by Roger Reid, M.D., Ardmore. One speaker who has not been named yet, will speak on "Essentials of the Neurological Examination" and Rex Kenyon, M.D., Oklahoma City, will speak on "Evaluation, Use and Misuse of Common Laboratory Procedures."

A meeting of the Board of Directors of the Oklahoma Chapter of the A.A.G.P. will be held preceding the day long program.

International College of Surgeons Sets Two Graduate Courses

In response to requests, the United States Section of the International College of Surgeons has arranged with the faculty of the Cook County Graduate School of Medicine, Chicago, for the presentation of two post-graduate courses this year instead of one.

The first will be given July 7-19, and the second October 13-25. The course will be conducted under the supervision of the attending staff of Cook County Hospital, Chicago.

The course will include illustrated lectures, motion pictures, anatomy demonstrations, operative clinics, and practice surgery by the participants on anesthetized dogs. Consideration will be given not only to surgical techniques, surgical complications, and management of the surgical patient, but also to an intensive review of the basic sciences in relation to clinical surgery.

In addition to 20 hours of surgical anatomy on the cadaver, the program will include lectures and demonstrations on the following topics: gastric, pediatric, large and small bowel, anorectal, pancreatic, splenic, gallbladder, gynecologic, hernia, esophageal and thyroid surgery; physiology, intestinal obstruction, thoracic emergencies, cardiac arrest, hand injuries and infections, and abdominal injuries.

Additional information may be obtained from the Cook County Graduate School of Medicine, 707 South Wood Street, Chicago 12, or International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

Two Oklahoma Physicians Certified By American Board of Obstetrics And Gynecology

Jed E. Goldberg, M.D., Tulsa, and Brock R. Westbrook, Jr., M.D., Bartlesville have been certified by the American Board of Obstetrics and Gynecology. A total of 280 certifications were announced.

Applications for certification by the Board, new and reopened, Part 1, and requests for re-examination Part II are now being accepted. Deadline date for receipt

of applications is September 1, 1958 and all candidates are urged to make such application at the earliest possible date.

Application fees of \$35.00, photographs, and lists of hospital admissions must accompany all applications. Candidates are requested to write to the office of the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio for a current Bulletin.

Southeastern Oklahoma Clinical Symposium

The McAlester Clinic Foundation and the University of Oklahoma School of Medicine, Department of Post Graduate Education will present the fourth Annual Southeastern Oklahoma Clinical Symposium in McAlester, Oklahoma, August 9-10, 1958.

The program will consist of scientific papers, clinical presentations, panel discussions, technical exhibits, and a cinema clinic. There will also be a special program for the ladies and a dinner dance.

Guest speakers for the two-day meeting and their subjects are: Harris D. Riley, Jr., M.D., University of Oklahoma School of Medicine, "Posthemorrhagic Anemia and Shock in Newborn" and "Management of Ureteral Injuries During Pelvic Surgery"; Jess E. Miller, M.D., Oklahoma City, "Urinary Tract Infections"; K. M. Earle, M.D., Galveston, Texas, "The Pathology of Involuntary Movements"; William R. Murphy, Jr., M.D., McAlester Clinic, "Aggressive Management of Abortions"; Phillip W. Brown, M.D., Mayo Clinic, Rochester, Minnesota, "Diseases and Tumors of the Small Intestine" and "Diseases of the Large Intestine"; Tom S. Gafford, M.D., "Ten Commandments For the Practice of Good Laboratory Medicine"; Dixon N. Burns, M.D., Tulsa, "Genital Tract Discharge"; and Robert A. Fouty, M.D., Eastern Oklahoma Tuberculosis Sanitarium, Tahleah, Oklahoma.

Ten hours credit, category 1, has been approved by the American Academy of General Practice for this symposium. A complete program and reservations may be obtained

A New Journal

Volume one, number one, "Diseases of the Colon and Rectum" was published by J. B. Lippincott in January, 1958. Although of great moment to the specialist, this should be of general medical interest. The journal will be published bimonthly. It represents the cumulative efforts of, and is sponsored by, The American Proctologic Society.

The Editor-in-chief, L. A. Buie, Sr., M. D. has been foremost in proctologic teaching and writing for many years. The Editorial and Advisory Board Members are pre-eminent in their respective specialties nationally and internationally. The journal will be an authoritative source of basic research and clinical information of diseases of the colon and rectum. Abstracts of current proctologic literature will be presented.—

Paul Vickers, M.D.

Clinical Symposium Announced for October

Charles E. Wilbanks, M.D., Tulsa, has announced that the Tulsa County Chapter of the American Academy of General Practice has planned a Fall Clinical Symposium to be held on Thursday, October 9, 1958, at Tulsa. This symposium which will be held under the joint auspices of the Tulsa County Medical Society and Lederle Laboratories, will replace the regular Founder's Day program.

Guest speakers are to be selected from leading medical personalities of the United States. Subjects to be discussed will be: "Uses of Hypnosis in Medicine," "Emotional Problems in the Geriatric Patient," "A 10th Anniversary Reappraisal of Broad Spectrum Antibiotics," "Newer Concepts of Vascular Surgery," "Newer Steroids, Newer Uses," "Medico-Legal Problems in Private Practice," and in addition there will be a seventh paper presented at the mid-day luncheon on "Emotional Problems in Parents and Children."

by writing to Charles A. Miller, Business Manager, McAlester Clinic, Third and Seminole Streets, McAlester, Oklahoma.

Coming Meetings

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS DISTRICT VII

September 12-13, 1958
Jackson, Mississippi

District VII, American College of Obstetrics and Gynecologists, will meet in Jackson, Mississippi September 12 and 13. The program consisting of scientific papers, round tables and movies will be held in the King Edward Hotel. Further information may be obtained by writing to C. G. Sutherland, M.D., The Woman's Clinic, 918 North State Street, Jackson, 2, Mississippi.

ACADEMY OF PSYCHOSOMATIC MEDICINE October 9-11 New York, New York

The fifth annual meeting of the Academy of Psychosomatic Medicine will be held October 9-11, 1958, at the Park Sheraton Hotel in New York City. The program will be devoted to the Psychosomatic Aspects of Internal Medicine and will include formal papers, panel discussions and luncheon conferences.

Information may be obtained from Bertram B. Moss, M.D., Suite 1035, 55 East Washington Street, Chicago 2, Illinois.

UNIVERSITY OF COLORADO MEDICAL CENTER 1958 Postgraduate Courses Denver, Colorado

THE PREVENTION AND MANAGEMENT OF ATHLETIC INJURIES*

August 25, 26, 27, 1958—Denver, Colorado

Don H. O'Donoghue, M.D., Orthopedic Consultant, University of Oklahoma; Thomas B. Quigley, M.D., Assistant Clinical Professor of Surgery, Harvard Medical School; Joseph P. Dolan, Ph.D., Research Professor of Physical Education, North East Missouri State Teachers College; Kenneth Rawlinson, Chief Trainer, University of Oklahoma and Jack Rockwell, Chief Trainer, University of Colorado will be speakers for this program.

*For detailed program and further information, write to: The Office of Postgraduate Medical Education, The University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

ST. JOSEPH'S CLINICS July 31, August 1 and 2 Denver, Colorado

The Fifth Annual St. Joseph's Clinic will be held July 31, August 1 and 2 in Denver. The meetings will be closed this year but physicians who are interested in attending may secure invitations by writing to Mrs. Eugenia Hogue, St. Joseph's Hospital, 18th at Humboldt, Denver 18, Colorado.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

Applications for certification (American Board of Obstetrics and Gynecology), new and reopened, Part I, and requests for re-examination Part II, are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of application is September 1, 1958. No applications can be accepted after that date.

Candidates for admission to the Examinations are required to submit with their application, an unbound 8½ x 11 typewritten list of all patients admitted to the hospitals where they practice, for the year preceding their application, or the year prior to their request for reopening of their application.

Current Bulletins outlining present requirements may be obtained by writing to the Secretary's office: Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

ANNUAL SOUTHEASTERN OKLAHOMA CLINICAL SYMPOSIUM August 9-10, 1958 McAlester, Oklahoma

The Fourth Annual Southeastern Oklahoma Clinical Symposium will be held in McAlester, August 9-10, 1958. The Symposium will be presented by the McAlester Clinic Foundation and the University of Oklahoma School of Medicine, Department of Post Graduate Education and is approved for ten hours credit, category 1, by the American Academy of General Practice. Further information may be obtained by writing to Charles A. Miller, Business Manager, McAlester Clinic, Third and Seminole Streets, McAlester, Oklahoma.

The
Achievements

of
Arist

...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only $\frac{2}{3}$ that of prednisone¹. . . Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*². . . absence of serious side effects specifically noted.^{1, 2, 3}

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients⁴. . . 6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).⁵

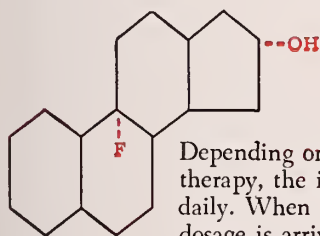
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aristocort®

Triamcinolone LEDERLE

...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.⁶... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.⁷

...in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.^{8,9}... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.^{10,11,12}... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.¹³



Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about $\frac{1}{3}$ in rheumatoid arthritis, by $\frac{1}{3}$ in allergic rhinitis and bronchial asthma, and by $\frac{1}{3}$ to $\frac{1}{2}$ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

ARISTOCORT is available in 2 mg. scored tablets (pink), bottles of 30; and 4 mg. scored tablets (white), bottles of 30 and 100.

Organization News

Health Economics Subject of Home Economics Workshop

Teaching of Health Economics was the subject of a workshop for home economists on the campus of the University of Oklahoma, June 23 - 27. The workshop was sponsored by the School of Home Economics, University of Oklahoma, the Oklahoma Tuberculosis Association, and the Extension Division, University of Oklahoma.

The object of this course was to explore with the home economists some of the economic factors involved in the attainment of optimum health for the individual and the community. In that the homemaker is charged with maintaining family health, it was the purpose of the workshop to study some of the basic principles involved in health economics so that this information can become a part of the home economics teaching program.

The workshop was developed as pilot study in the establishment of guide lines for the home economists in teaching high school and adult classes. Topics considered in the workshop included:

1. "Purchasing Medical Care," Guest Speaker: Mr. Tom Emel, Administrator, Oklahoma City Clinic;
2. "Selection of a Physician," Guest Speaker: Ben H. Nicholson, M.D., Editor, *The Journal of the Oklahoma State Medical Association*;
3. "Economic Factors in Public Health," Guest Speaker: Kirk T. Mosley, M.D., Professor of Preventive Medicine, University of Oklahoma School of Medicine;
4. "The Voluntary Health Agency in our Economy," Guest Speaker: Miss Alice I. Porter, Managing Director, Oklahoma Tuberculosis Association;
5. "Pre-payment of Medical Care," Guest Speaker, Mr. Ralph Bethel, Oklahoma Blue Cross-Blue Shield.

Mrs. Constance Cherry, Assistant Professor of Home Economics University of Oklahoma directed the workshop.

The Oklahoma Tuberculosis Association,

Medicare Contract Renegotiated

Two Oklahoma physicians recently traveled to Washington for Medicare renegotiation meetings with Department of Defense officials. Walter E. Brown, M.D., Chairman of the OSMA Medicare Committee and Thomas C. Points, M.D., committee member, represented the Association during a two and one-half day discussion of certain changes proposed by Oklahoma physicians.

Windham Hill, Blue Shield Claims Supervisor, representing the fiscal agency, also participated in separate conferences regarding the financial administration of the Oklahoma program.

According to Doctor Brown, the group was reasonably successful in accomplishing the suggested variations and changes in the program. The Medicare Committee met in Tulsa on June 25 to receive Doctor Brown's report on the negotiations and authorized the OSMA executive office to accept bids on the printing of a new physician's manual.

Garfield-Kingfisher Society Holds "Recreation Day"

Members of the Garfield-Kingfisher County Medical Society played host to the doctors of northwest Oklahoma at an all day "Recreation Day" program of events at the Oakwood Country club on Monday, June 30.

Athletic events in the early afternoon started the day's activities. Golfing and swimming facilities were offered to those interested. For those favoring less strenuous activities, card games were organized.

Next on the agenda was a social hour, followed by dinner. A dinner speech was provided by Mr. H. B. Groh, Vice-President of the Southwestern Bell Telephone Company, Oklahoma City, who spoke on the subject, "Inside Russia." Mr. Groh recently returned from Russia where he was a guest of the government.

through its county associations made a number of scholarships available to home economic teachers to attending the workshop.



IN APPRECIATION for a particular incident of meritorious service, Dr. Fred Becker, left, of Altus is presented the Air Force Scroll of Appreciation by Col. George J. Krause, Altus Air Force Base commander. Presentation was made at a base-community relations council luncheon. (A.F. photo)

AF Scroll of Appreciation Presented To Altus Doctor

The Air Force Scroll of Appreciation for meritorious service was presented to Dr. Fred W. Becker, Altus physician, by Col. George J. Krause, base commander, at a meeting of the base-community relations council held in the Officers Club recently.

The Scroll was awarded to Doctor Becker for services rendered above and beyond the call of duty, in the treatment of a gun-shot wound suffered by an Altus Air Force Base staff sergeant.

The Scroll read: "In appreciation to Fred W. Becker for rendering meritorious service to the United States Air Force on 6 October 1957. Hurridly responding to an emergency at Olustee, Oklahoma, Doctor Becker quickly noted the critical condition of an air force member who had been injured by a gunshot explosion. In the finest traditions of the medical service, he accompanied the victim on the fifteen mile drive to Altus Air Force Base hospital, applying constant pressure to the wounded area to staunch the flow of blood. Seeing

that an immediate transfusion was necessary, Doctor Becker, without thought for his own being, selfishly gave his own blood so that surgery could be performed. Doctor Becker's humanitarian regard for his fellow man and dedication to the tenents of his profession reflect great credit upon himself and have earned him the sincere appreciation of the United States Air Force." The scroll was signed by James H. Douglas, Secretary of the Air Force and General Thomas D. White, Chief of Staff of the Air Force.

In presenting the award, Colonel Krause stated, "In the military service, acts such as this, where an individual places devotion to duty above his own well-being are considered acts of heroism and awards are given in recognition of these acts. However, it is not often that we in the military have an opportunity to reward our civilian neighbors for their outstanding services to members of the Armed Forces, it is therefore, a distinct pleasure for me to have the honor of presenting this scroll to Doctor Becker, on behalf of the United States Air Force."

Ponca City Doctors Host Professional Men

Members of the Ponca City medical profession served as hosts for a Professional Men's Dinner held on June 10 at the Ponca City Country Club. This annual affair is the oldest inter-professional meeting in the state, having been interrupted only briefly during the second world war. Uniquely, the dinner is not limited to doctors and lawyers as are other similar functions, but also includes dentists, pharmacists and accountants.

J. T. Terry, M.D., President of the Kay-Noble County Medical Society, welcomed the group and introduced special guests for the evening which included E. C. Mohler, M.D., President of the O.S.M.A., John F. Burton, M.D., Past-President of the O.S.M.A., John E. McDonald, M.D., guest speaker and Messrs. Dick Graham and Don Blair of the association office.

Doctor McDonald, a past-president of the association and a current member of the A.M.A.'s Legislative Committee addressed the group on socialistic trends in national legislation and the adverse affects such fruits of a strong central government are having on individual initiative and free enterprise. Although his talk was principally centered around the dangerous trends in medical legislation, he also discussed the general socialistic philosophy that is plaguing the country.

New O.S.M.A. Directory Started

Work has begun at the O.S.M.A. office on a new membership directory, with the completion date set for November.

The publication of the directory entails a complete review of association membership records in order to make the proper corrections, additions and deletions of the names, addresses and specialties of some 1800 members. As in the past, the directory will also contain the revised constitution and by-laws of the association as well as informative material on various governmental health departments and voluntary health agencies.

Garfield County Initiates Service

Forty-two members of the Garfield County medical profession will kickoff the operation of a new service type Blue Shield contract on August 1. The new program, developed after considerable negotiation, will operate in lieu of the indemnity type Blue Shield program currently operating on a statewide basis.

A. F. Dougan, M.D., president of the medical society, and N. D. Helland, Tulsa, Director of the Oklahoma Blue Cross-Blue Shield Plans, said in a joint statement June 25 that participating Garfield county physicians have agreed to make available many of their services on a pre-payment basis without additional charges above a member's Blue Shield dues.

The physicians have established fees which they agree to accept in full payment for services performed for a Blue Shield member. Most non-routine services, including obstetrics but not post or pre-natal care, are covered.

Changes have also been made in the Blue Cross phase of the coverage, with a \$25.00 deductible hospital program being offered as an option to the previous plan. A family enrollment, on a non-group basis will cost \$9.70 per month for the deductible Blue Cross plus the service Blue Shield program. For the full hospital coverage plan and the service Blue Shield, a family enrollment will cost \$11.00 per month. Coverage for an individual under the above arrangements will be \$4.25 per month and \$4.85 per month, respectively.

Advantages of . . .

Continued from page 424

simply another step toward communism. We cannot allow freedom to become a habit and in so doing lose the personal liberties we enjoy under private medical care!

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Doctor Mohler Announces 1958-59 Committees

E. C. Mohler, M.D., newly-installed President of the Oklahoma State Medical Association, has announced the following partial list of committee appointments for the 1958-59 tenure of his administration:

Committee on Medical Core Under UMWA

Tom S. Gafford, M.D., Muskogee
Robert Lowrey, M.D., Poteau
Wilkie D. Hoover, M.D., Tulsa
Kelley West, M.D., Oklahoma City
Fred D. Switzer, M.D., McAlester
Floyd T. Bartheld, M.D., McAlester
Carlton Smith, M.D., Henryetta

Committee on Rural and School Health

C. W. Arrendell, M.D., Ponca City, Chairman
Mark Holcomb, M.D., Enid
Ray B. Graybill, M.D., Ardmore
Paul O. Shackelford, M.D., Tulsa
George L. Lythcott, M.D., Oklahoma City

General Health Committee

J. Floyd Moorman, M.D., Oklahoma City, Chairman
L. G. Livingston, M.D., Cordell
Grady F. Mathews, M.D., Oklahoma City
Leslie Hamm, M.D., Lawton
Earl M. Lusk, M.D., Tulsa
T. C. Glasscock, M.D., Ponca City
E. K. Norfleet, M.D., Bristow
Frank Adelman, M.D., Enid
Ross Deputy, M.D., Clinton

Executive Committee

E. C. Mohler, M.D., Ponca City
A. T. Baker, M.D., Durant
Malcolm E. Phelps, M.D., El Reno
Francis R. First, M.D., Checotah
Wendell L. Smith, M.D., Tulsa
Joe L. Duer, M.D., Woodward
Johnny A. Blue, M.D., Oklahoma City

Cancer Committee

James W. Murphree, M.D., Ponca City, Chairman
Joe M. Parker, M.D., Oklahoma City
C. K. Holland, M.D., McAlester
John R. Records, M.D., Oklahoma City
Hays R. Yandell, M.D., Tulsa
Bruce R. Hinson, M.D., Enid

Insurance Committee

Ralph A. Smith, M.D., Oklahoma City, Chairman
Archie F. Dougan, M.D., Enid
C. E. Woodard, M.D., Drumright

Willard D. Holt, M.D., Altus
Ralph A. McGill, M.D., Tulsa
E. C. Yearly, M.D., Ponca City
Port Johnson, M.D., Muskogee
Curtis Berry, M.D., Norman

Public Policy Committee

J. R. Stacy, M.D., Oklahoma City, Chairman
G. R. Russell, M.D., Tulsa
Powell E. Fry, M.D., Stillwater
Robert Lowrey, M.D., Poteau
Charles E. Green, M.D., Lawton
E. H. Shuller, M.D., McAlester
Louis H. Ritzhaupt, M.D., Guthrie
James C. Amspacher, M.D., Oklahoma City
Clinton Gallaher, M.D., Shawnee
J. Hoyle Carlock, M.D., Ardmore
E. A. McGrew, M.D., Beaver
John E. McDonald, M.D., Tulsa

Advisory Committee to Woman's Auxiliary

C. E. Northcutt, M.D., Ponca City
R. Q. Goodwin, M.D., Oklahoma City
Hugh Perry, M.D., Tulsa

Physician's Advisory Committee to Oklahoma Medical Assistants Society

C. B. Dawson, M.D., Oklahoma City, Chairman
Robert Allen, M.D., Bartlesville
Charles E. Wilbanks, M.D., Tulsa

Medicare Committee

Walter E. Brown, M.D., Tulsa, Chairman
Charles E. Green, M.D., Lawton
David C. Ramsay, M.D., Ada
Thomas C. Points, M.D., Oklahoma City
Horton E. Hughes, M.D., Shawnee
Tom S. Gafford, M.D., Muskogee
Robert C. Lawson, M.D., Oklahoma City
William B. Renfrow, M.D., Oklahoma City
L. B. Word, M.D., Bartlesville

Medical Core for Recipients of Public Welfare

Mark R. Johnson, M.D., Oklahoma City, Chairman
Thomas E. Rhea, M.D., Idabel
Richard Burgtorf, M. D., Shattuck
R. M. Wadsworth, M.D., Tulsa
George H. Garrison, M.D., Oklahoma City
E. M. Gullatt, M.D., Ada
T. H. McCarley, M.D., McAlester

Committee on Health Care for Aged

Hayden H. Donahue, M.D., Oklahoma City, Chairman
Henry H. Turner, M.D., Oklahoma City
C. E. Bates, M.D., Sulphur
Leonard P. Eliel, M.D., Oklahoma City
Samuel C. Sheperd, M.D., Tulsa
J. R. Stacy, M.D., Oklahoma City
Mr. Paul Snelson, Oklahoma City, (Consultant)

Deaths

JOSEPH G. BRECO, M.D.
1877-1958

Joseph G. Breco, M.D., retired Ada physician, died in Corpus Christi, Texas, May 23. Born in Canada in 1877, Doctor Breco graduated from the Southern Methodist University Medical Department in 1905. He began his practice in Canton, Texas, coming to Stone-wall, Oklahoma in 1906 and to Ada in 1915 where he remained until his retirement in 1945.

After living in California for ten years, he moved to Corpus Christi where he lived until his death.

Doctor Breco held both Life and Honorary Memberships in the Oklahoma State Medical Association.

JAMES I. PAYTE, M.D.
1896-1958

James I. Payte, M.D., Oklahoma City physician, died at his home May 27. Doctor Payte had practiced in Oklahoma City since receiving his medical degree.

Born in Sipe Springs, Texas in 1896, Doctor Payte came to Oklahoma City in 1928 and graduated from the University of Oklahoma School of Medicine in 1930. He served as a lieutenant commander in the navy during World War II.

Doctor Payte was a member of the Oklahoma County Medical Society, the Oklahoma State Medical Association and the American Medical Association.

Letter to The Editor

The recent report of the Ad Hoc Committee of the Surgeon General of the United States, after weighing the advantages and disadvantages of BCG vaccination, states: "It is believed, however, that the advantages of vaccination outweigh the disadvantages for tuberculin negative persons who are exposed to a definite risk of infection, especially if they cannot be retested frequently with tuberculin."

This Committee recommended BCG vaccination for those groups recommended by the American Trudeau Society, the American College of Chest Physicians, the American Medical Association, and the Medical Advisory Committee of Research Foundation.

The specific groups recommended for BCG vaccination by the American Trudeau Society are:

1. Doctors, medical students, and nurses who are exposed to tuberculosis;
2. All hospital and laboratory personnel whose work exposes them to contact with the bacillus of tuberculosis;
3. Individuals who are unavoidably ex-

posed to infectious tuberculosis in the home;

4. Patients and employees in mental hospitals, prisons, and other custodial institutions in whom the incidence of tuberculosis is known to be high;

5. Children and certain adults considered to have inferior resistance and living in communities in which the tuberculosis mortality rate is unusually high.

There have been numerous inquiries from all parts of the United States as to where BCG vaccine may be obtained. In order to assist those interested, the following information is offered:

BCG vaccine may be obtained by any licensed physician in the United States and its territories by writing to the laboratories of Research Foundation and the University of Illinois, the only institutions licensed to produce and distribute BCG in this country. The address of Research Foundation is: 70 West Hubbard Street, Chicago 10, Illinois.

Sol Roy Rosenthal, M.D., Ph.D.
Medical Director, Research Foundation, and
Director, Institution for TB Research,
University of Illinois

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association July, 1933.

The Woes to Which the Doctor Is Exposed

"Ordinarily, what is known as the Statute of Limitations runs one year in ordinary cases, but occasionally extraordinary cases occur and we have now one such case on hand. Thinking it over it seems that it is unjust to be called upon to defend a suit many, many, years old, where the witnesses to what occurred may have died, or moved away. However, that does not prevent the bringing of a certain type of suit.

In this particular instance the plaintiff, one Henderson, sustained a fracture twelve years ago; a physician was called and this physician apparently rendered the best service possible, taking into consideration the type of fracture of the forearm which occurred. Unfortunately the patient happened to be only six years of age at that time. Now upon reaching legal age he has filed suit against the physician alleging malpractice. The chances are very strong that he will obtain nothing for the physician called in every available, competent man in reach to assist him in treatment and advice as to the case.

Of course it is a very well known rule of law, that a minor may bring suit for an occurrence which occurred many years prior to the affair, within one year after attaining his majority. But it certainly seems to us very unjust that a physician may be called to answer such a suit.

As we have pointed out before, keep a record of everything—what was found, and everything that was done to combat it, all of which may prove invaluable in later years. On this account we urge every physician practicing medicine to keep a card (we keep one 5" x 8", and to that is often clipped other pages so that should any question arise in the future we have all the data at hand.)

This is a very positive protection and aid to us at all times. I simply pick up the card, read over the record, and know at once what happened at that time and what was done about it. We recommend this system to every physician.

In this connection it occurs to the writer that the physician should always retain the X-ray or a duplicate of it, for no one knows what disposition may be made of it, should it fall into the wrong hands."

Editorial Notes—Personal and General

" . . . CANADIAN COUNTY MEDICAL SOCIETY held their regular quarterly meeting June 4th, as the

Have You Heard?

HENRY H. TURNER, M.D., Oklahoma City, will be one of the program participants at a one day postgraduate course scheduled by the University of Texas School of Medicine on July 20. He will appear on two panel discussions as well as talk on the subject "Some Atypical Problems of Myxedema."

On the preceding night, he will talk to a reunion of former residents of Texas Medical Center Hospitals on the subject, "Male and Female Hypogonadism and Infertility."

B. T. BRUNDAGE, M.D., Thomas physician, has been appointed to the State Board of Health by Governor Raymond Gary. Doctor Brundage will succeed ROY L. FISHER, M.D., formerly of Frederick, who has moved out of the state.

SAM DAKIL, M.D., McAlester physician, is moving to New Orleans where he will receive two years' ear, nose and throat training at Tulane University School of Medicine.

EUGENE FLOCK, M.D., who has been a member of the faculty of the University of Oklahoma Medical Center for the past four years, has moved to Weatherford, Oklahoma.

JOHN H. LAMB, M.D., Oklahoma City, was guest speaker at the New York State Medical Society in New York City, May 14. He spoke in the section on Dermatology and discussed polymorphic light-sensitive eruptions. He also participated in a panel discussion of the influence of ultraviolet light on the human skin.

MARSHALL O. HART, M.D., Tulsa physician, has been appointed by Governor Raymond Gary to serve a one-year term on the state board of medical examiners. He will succeed the late L. S. WILLOUR, M.D., McAlester.

guests of Dr. and Mrs. Joseph T. Phelps, El Reno. A dinner was served the guests, after which Dr. C. P. Bondurant, Oklahoma City, presented a lantern slide lecture on "Diseases of the Skin, Commonly Seen in General Practice." Dr. J. K. Kuhn, Oklahoma City, was the other additional guest. Dr. Erwin Walter Blatter, head of the medical staff of the Southwest Reformatory, was made an honorary member of the Society. . . ."

General Practice

Clyde R. Danks, M.D., 4780 Easley Street, Millington, Tennessee, age 29, married, graduated from University of Louisville, 1955. Will be available mid-August, 1958 upon completion of military service.

Sam Davis, M.D., 1605 N.E. 38, Oklahoma City, age 33, married, graduated from University of Oklahoma School of Medicine, 1956, veteran, will be available July 1, 1958.

Archie Neal McIntyre, M.D., 138 LeHardy Dr., Savannah, Georgia, age 28, married, graduated from Louisiana State University School of Medicine, 1955. Will be available November 3, 1958 upon completion of military service.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

Charles Edward Selah, M.D., Huey P. Long Charity Hospital, Pineville, Louisiana, age 31, married, will complete board requirements in June, 1958, veteran, graduated from Tulane 1951, will be available July 1, 1958.

Ralph L. Hopp, M.D., 338 E. Kingsley, Ann Arbor, Michigan. Married, veteran, Board Certificate held in General Surgery. Graduated Indiana University, 1950, will be available July 1, 1958.

Francis Patrick Lamb, M.D., 6426 Evergreen, Berkeley 21, Mo., age 35, married, veteran, graduated from St. Louis University in 1951, Diplomate American Board of Surgery, will be available July, 1958.

Internal Medicine

Robert Edward Weaver, M.D., 1133 West Frey Street, Stephenville, Texas, age 34, married, board certified in internal medicine, graduated from University of Pennsylvania School of Medicine, 1949, veteran, prefers to practice in or near a teaching center. Will be available August, 1958.

Jack David Shirley, M.D., 430 Bellevue, Lafayette, Louisiana, age 27, married, will be inducted into U. S. Navy, October 6, 1958, graduated from University of Oklahoma in 1956, would like position for three months doing general practice. Will be available July 1, 1958.

Orthopedic Surgery

H. N. Hamilton, M.D., 13 Evergreen Road, Little Rock, Arkansas, age 36, married, veteran. Johns Hopkins, 1945, finishing Orthopedic Residency July 1958 and will be available at that time.

Thoracic and Cardiovascular Surgery

Wayne E. Hird, M.D., McGuire VA Hospital, Richmond 19, Virginia, age 31, married, Korean veteran, University of Kansas 1950, Board qualified in General Surgery, Thoracic and Cardiovascular exams will be completed by next July. Will be available July, 1958.

James L. Russell, M.D., Charity Hospital of La., New Orleans 12, La., age 30, veteran, graduated from University of St. Louis 1949, Board certified in General Surgery, Board qualified in Thoracic and Cardiovascular. Will be available August, 1958.

CLASSIFIED ADS

WELL EQUIPPED OFFICE for G. P. or O. B.-GYN. in downtown medical center, with background of large practice. Will lease, sell, or turn over everything for privilege of seeing a few old patients for two or three hours a week. Call JA 4-3203 or JA 4-3218, Oklahoma City.

CLINIC LOANS: If you are planning to build a clinic, and need to secure financing, call Pat Allen, WI 2-2402 or write 1201 Classen Dr., Oklahoma City.

FOR SALE: Attractive business building, furnishings and equipment. Close by downtown Tulsa. Building is six years old and in good condition. Now being used by two physicians. Other new buildings recently erected close by. Available by July 1, 1958. 1321 South Main or call LUTher 4-2481 in Tulsa.

Proceedings of the 52nd Annual Session of the House of Delegates of the Oklahoma State Medical Association

CLOSING SESSION

The Closing Session of the 52nd Annual Session of the House of Delegates of the Oklahoma State Medical Association was called to order by the Speaker of the House, Doctor Clinton Gallaher, at 7:30 p.m. in the Hall of Mirrors of the Municipal Auditorium in Oklahoma City.

The Credentials Committee reported a quorum was present.

Doctor Gallaher called for introduction of guests. Doctor Sam A. McKeel, Ada, Past President of the Association, was presented.

Additional announcements were called for. None were forthcoming.

The Chair called on Doctor John E. McDonald, Tulsa, a member of the Legislative Committee of the A.M.A. for a report on current legislation facing the profession.

Doctor McDonald spoke briefly to the Delegates, emphasizing the responsibility of the profession in keeping informed of legislation pending, and also of the great need for personal contact of Congressmen, Senators, etc., in order that they might be informed of the viewpoint of the physicians. Doctor McDonald urged the physicians to take the lead in opposing legislation detrimental to the profession of medicine.

The next order of business was the report of the Resolutions Committee. Doctor Gallaher called on Doctor C. M. Hodgson, Kingfisher, Chairman of this Committee for a report.

As the first Resolution, Doctor Hodgson read the following, submitted by the Carter, Love and Marshall Counties Medical Society:

WHEREAS, the County and District Societies of the Oklahoma State Medical Association recognize the need for timely consideration of problems that will be brought before the House of Delegates at its Annual Meeting;

THEREFORE BE IT RESOLVED that the House of Delegates instruct its officers, Council, and Committees to submit their reports to the Secretary of the Oklahoma State Medical Association in sufficient time to be forwarded to County and District Societies at least thirty days prior to the Annual Meeting of the House of Delegates.

Doctor Hodgson reported, The Resolutions Committee has considered the Resolution from the Carter, Love, and Marshall County Medical Society, which in essence, requests the Executive Office to provide the

County Medical Societies, at least thirty days prior to the Annual Meeting, of the important problems that will be brought before the House of Delegates.

Your Committee is in favor of the intent of this resolution and recommends that the resolution be adopted with the following understanding: That the material sent to the County Societies from the Executive Office will outline the important problems to be brought before the House of Delegates, but will not include all final written reports.

Doctor Hodgson moved the adoption of the Resolution and the recommendations of the Committee. The motion was seconded and upon being put to vote, the motion carried.

The next resolution to be presented by Doctor Hodgson was from the Canadian County Medical Society:

WHEREAS, under the procedure followed by the Oklahoma Department of Public Welfare doctors rendering professional services to persons on the Welfare rolls are required to submit their bill for such services to the Department of Public Welfare and the bill is paid by the Welfare Department with public funds derived from taxes; and

WHEREAS, this practice will encourage government interference with the practice of medicine and governmental control thereof.

NOW, THEREFORE, BE IT RESOLVED BY THE HOUSE OF DELEGATES OF THE OKLAHOMA STATE MEDICAL ASSOCIATION IS SESSION ASSEMBLED:

That from and after the first day of June, 1958, no member of this Association shall bill the department of Public Welfare for medical or professional services rendered to any patient on the welfare rolls, but on the contrary such bills shall be rendered to the patient or such person designated by the patient or such other person legally liable for the same.

Doctor Hodgson reported the following recommendation by the Resolutions Committee:

In lieu of the action by the House of Delegates of the 52nd Annual Opening Session, this Committee recommends that the context of this Resolution has already been decided by the House of Delegates.

Doctor Hodgson moved that the Committee recommendation be approved and adopted. The motion was seconded, and following brief discussion, the motion carried.

The next resolution to be presented by the Chairman was submitted by the Tulsa County Medical Society:

WHEREAS, The Blue Shield Plan of Oklahoma was originally established by the physicians of the State of Oklahoma to provide the highest type of prepaid surgical and medical care insurance to the general public, and

WHEREAS, The Oklahoma State Medical Association, by action of its House of Delegates, has previously recognized the existence of the Blue Shield Plan of Oklahoma, endorsed it in principle, and approved the participation of the medical doctors of Oklahoma in its program, and

WHEREAS, Many problems arise from time to time which are of mutual interest to the Medical Profession of Oklahoma and the Blue Shield Plan of Oklahoma, problems whose solutions are essential to the most effective operation of the Plan,

NOW THEREFORE BE IT RESOLVED: That the House of Delegates direct the creation of a permanent committee to be known as the Blue Shield Liason Committee; the number of members of this Committee shall be determined by the Council; and the personnel, including the Chairman, shall be appointed from the membership of the Oklahoma State Medical Association or the officials and members of the Blue Shield Plan of Oklahoma, and

BE IT FURTHER RESOLVED: That this Blue Shield Liason Committee shall receive, deliberate upon and make recommendations on any problems pertaining to the Blue Shield Plan of Oklahoma and to relative matters in the field of prepaid medical and surgical care insurance, which may be brought to its attention by the officials and members of the Oklahoma State Medical Association or the officials and members of the Blue Shield Plan of Oklahoma, and

BE IT FURTHER RESOLVED: That this Blue Shield Liason Committee shall promote a spirit of cooperation with the Blue Shield Plan of Oklahoma in making it into an effective instrument for the benefit of the people of Oklahoma.

Doctor Hodgson reported that the Resolutions Committee recommended the adoption of this Resolution, and it was so moved by Doctor Hodgson. The motion was duly seconded and carried.

The next resolution to be presented was submitted by the Okmulgee County Medical Society.

WHEREAS, the members of the Okmulgee County Medical Society, in a regular meeting assembled this date, at which a quorum of members are in attendance under its By-Laws, have considered and discussed certain problems and issues confronted by practicing physicians and surgeons constituting the members of this Society and have deemed the necessity of positive and affirmative action by and in behalf of this

Society and its members in the respects and particulars hereinafter contained in this Resolution:

NOW THEREFORE, Be it resolved by the Okmulgee County Medical Society that the UMWA Welfare Fund or any similar organization, which knowingly and willingly denies its beneficiaries the right of free choice of physicians or free choice of hospital as defined by the AMA Guides to Relationships between

State and County Medical Societies, be vigorously condemned.

Doctor Hodgson advised the House that the Resolutions Committee recommended the adoption of this resolution. Doctor Hodgson so moved. The motion was seconded, and following brief discussion, the motion carried.

The next resolution to be presented by Doctor Hodgson was one submitted by the Pittsburg County Medical Society.

WHEREAS; A fund has been provided by royalty collected on coal mined on a tonnage basis, known as the United Mine Workers of America Welfare and Retirement Fund, for the purpose of providing non-industrial medical and hospital care for the miners and their dependents, and

WHEREAS; The fund is administered by a Board of Directors composed of three people, one selected by the United Mine Workers of America, one selected by the coal operators, and a third selected as a neutral party, and with the assistance of a medical director selected by the three board members, currently in the person of Doctor W. F. Draper, and

WHEREAS; in the beginning of the operation of this plan, all medical doctors were given an opportunity to participate in this plan on a voluntary basis, and WHEREAS; the administration of the United Mine Workers of America Welfare and Retirement Fund has altered its original agreement in that it now designates certain doctors to do its medical service, thus eliminating certain doctors who previously participated, and depriving them of the opportunity of participation without known cause or recourse.

THEREFORE; be it resolved that the President of the Oklahoma State Medical Association be instructed to form a Committee to be a liason between the physician and the administration of the United Mine Workers of America Welfare and Retirement Fund. The purpose of this Committee is:

1. To make a thorough study of the entire problem involved in the present operation of the fund as it pertains to the doctors of Oklahoma.
2. To hear complaints arising with the individual doctors and/or the Area Administrator of the fund.

3. To investigate complaints by the doctor and the administrator both at the local level and the level of the area administrator.
4. To make recommendations to the doctor and the area administrator.

And be it further resolved that in case of unsatisfactory negotiation in these matters with the administrator, the committee shall develop a report of the negotiations together with a recommendation of procedure to be submitted to the Council for approval and implementation.

Doctor Hodgson advised that this Resolution had been discussed with the representatives of the Pittsburgh County Medical Society, and inasmuch as the Committee has been informed that the incoming President, Doctor Mohler, has indicated that he will appoint a liason Committee, said committee to be in a position to act, if and when negotiations can be reopened with the UMWA. The Committee recommends this resolution not be adopted. Doctor Hodgson so moved. The motion was seconded.

Following discussion of the Resolution and the motion, it was moved by Doctor McCarley that the recommendation of the Resolutions Committee not be adopted.

Doctor Duer rose to a point of order, stating, that the motion was out of order in that there was a motion before the House which superseded the one made by Doctor McCarley. The Chair ruled Doctor McCarley's motion invalid.

Following futher discussion, in which the Pittsburgh County Medical Society representatives evinced a desire for the resolution to be adopted, a vote was called for the motion before the House. The motion was defeated.

Doctor McCarley moved the adoption of the Resolution; the motion was seconded.

Doctor Ross moved that the motion be amended as follows: "Anyone, regardless of whether injured or an accident or paid by the government insurance, or private capital, have free choice of physician." Motion seconded. Following further discussion, in which the motion was re-read, Doctor Duer moved that this resolution be tabled. The motion was seconded. Upon being put to vote, the motion for tabling was defeated. A vote was called for on the motion as amended. The motion carried.

Doctor Hodgson advised that the next Resolution to be presented was submitted by the Grady County Medical Society.

WHEREAS, our beloved country was established in order to secure the blessings of liberty to ourselves and our posterity, and the philosophy of free private

enterprise has brought our citizens the highest standard of living, the greatest degree of happiness, and the highest standard of health the world has ever known, and

WHEREAS, Recent years have witnessed a steady encroachment by the government into the various fields of private enterprise, and good evidence exists that this encroachment will continue to be pressed by those interested in such movement, and

WHEREAS, experience in other countries clearly indicates that such encroachment in the field of medical care leads to politically dominated, inefficient, costly, socialistic medicine, easily subject to abuse and not easily subject to constructive improvement once instituted, and under which the taxpayers receive poorer medical care at greater cost to themselves, and

WHEREAS, The members of the Oklahoma State Medical Association deplore all such tendency to abandon the principles which have made this country great, but wish to make clear certain minimum conditions without which they could never take part in any proposed health program, and in so doing solicit the support of their colleagues in other states of our great union,

NOW, THEREFORE, BE IT RESOLVED That the members of the Oklahoma State Medical Association cannot accept any system of government-sponsored practice of medicine which does not provide the following cherished principles:

- (1) Freedom by the patient to consult the physician of his choice
- (2) Freedom by the physician to choose those whom he will serve
- (3) Freedom by the physician to practice his calling in accordance with the recognized code of medical ethics
- (4) Freedom by the physician to care for his patients in accordance with established scientific principals, not subject to interference by a third party
- (5) Freedom by the physician to practice his profession on a fee-for-service basis
- (6) Freedom by the physician to collect a portion of the fee for each service performed directly from the patient
- (7) Freedom by the physician to practice such a system of government-sponsored practice of medicine under the terms of a written contract between the government and the various State Medical Associations, such contract to be of limited duration and renewable by mutual agreement of contracting parties

- (8) Freedom by the State Medical Association to have professional representation at the policy determining level of such a proposed system
- (9) BE IT FUTHER RESOLVED, That the House of Delegates of the Oklahoma State Medical Association instruct their delegates to the American Medical Association to bring this resolution before the next meeting of the American Medical Association for endorsement.

Doctor Hodgson reported that the Resolutions Committee approved this Resolution pending deletion of items 6, 7 and 9, Doctor Hodgson moved that the recommendation of the Resolution Committee be adopted. The motion was seconded.

Following discussion it was moved by Doctor Burton that the motion be amended to include item number 9. This admendment to the motion was seconded. Following brief comments, the amendment to the motion was put to vote and carried.

As the Resolution was further discussed, it was moved by Doctor McClure that the motion be amended to include items number 6 and 7 in the Resolution. This amendment was also seconded. The amended motion was put to vote and carried. The Chair advised that the adoption of the amended motion, in effect, adopted the entire resolution.

The last Resolution to come before the House of Delegates, Doctor Hodgson reported, concerned the World Medical Association.

WHEREAS, The House of Delegates of the American Medical Association has recommended that every member of the A.M.A. join the U. S. Committee of the World Medical Association, and has urged that its component state associations "support and give official recognition to the . . . U. S. Committee in order to achieve the objectives of the World Medical Association in protecting the freedom of the medical practice and increasing the influence of the practicing medical profession at the international level", and

WHEREAS, this society recognizes that it is as important for each physician to support his international organization as to support his county, state and national medical societies, therefore be it

RESOLVED, that the Oklahoma State Medical Association hereby expresses its support of the principals and objectives of the World Medical Association and urgently recommends that each member of this Society join the U. S. Committee of the W.M.A. and take an active part in its services to the medical profession and the peoples of the world.

Doctor Hodgson stated that the Resolutions Committee recommended the adoption of this resolution, and he so moved. The motion was seconded and carried.

Thus concluded the report of the Resolutions Committee.

The next business on the agenda of the House, Doctor Gallaher stated, was the report of the Committee on Constitution and By-Laws. Doctor William T. Gill, Ada, Chairman of the Committee gave the following report:

COMMITTEE ON CONSTITUTION AND BY-LAWS

"This afternoon you adopted a revised and amended constitution. An amendment to the constitution has been submitted, which will now be read. It requires no action now, but will be voted on a year from now. This amendment is reported by your Committee without recommendation. It is as follows:"

Amend Article VIII, Section 5 of the Constitution by adding at the end thereof the following sentence.

"If the office of President-elect becomes vacant, the president shall immediately call a special session of the House of Delegates for the purpose of filling the vacancy by election."

This afternoon, the standing committee of the Association on Constitution and By-Laws, reported an amended and revised set of By-Laws, which report was accepted by the House of Delegates. I now move that those By-Laws, as revised, amended, and reported, be adopted as the By-Laws of the Oklahoma State Medical Association.

The motion was duly seconded. It was discussed by Doctor Ritzhaupt, who objected to the Council becoming the Judicial body of the Association. Doctor Ritzhaupt moved that the adoption of the By-Laws be postponed for a year. The Chair declared the motion lost for want of a second. The motion to adopt the By-Laws was put to the House of Delegates and duly passed.

Doctor Gallaher announced that the next order of business would be the election of officers.

The first office to be filled was that of the President-Elect. The candidate for this office was Alfred T. Baker, M.D., Durant, nominated in the opening session. Doctor Gallaher called for futher nominations. None were forthcoming.

Doctor Phelps moved that the nominations for this office be closed and that Doctor Baker be elected by acclamation. The motion was seconded and upon being put to vote, the motion carried.

The next office to be filled was that of the Vice-President.

It was moved by Doctor John E. McDonald that the nomination for Vice-President be closed, and that the nominee, Francis R. First, M.D., Checotah, be elected by acclamation. The motion was duly seconded and carried.

The next office to be filled was that of the Speaker of the House of Delegates. At this time Doctor Gallaher turned the Chair to Doctor Carlock to conduct the election.

It was moved by Doctor Ridgeway that the nominations for this office be closed and the nominee, Doctor Gallaher, Shawnee, be elected by acclamation. The motion was duly seconded and carried.

The next office to be filled was that of Vice-Speaker of the House of Delegates. The Chair was resumed by Doctor Gallaher.

Nominees for this office were Elmer Ridgeway, M. D., Oklahoma City, and C. M. Hodgson, M.D., Kingfisher.

Doctor Hodgson requested that his name be withdrawn for the nomination of Vice-Speaker, and in lieu thereof placed in nomination the name of J. Hoyle Carlock, M.D., Ardmore. It was so ordered.

Doctor Ridgeway asked that his name be withdrawn as nominee for this office. It was so ordered.

Doctor Nolen Armstrong placed in nomination the name of Marvin B. Glismann, M.D., Oklahoma City, for the office of Vice-Speaker.

Doctor McDonald moved that the nominations be closed. The motion was seconded and carried.

Doctor Gallaher announced that the vote for Vice-Speaker of the House would be by ballot, and requested that the tellers come forward.

Following the voting and the tabulating thereof, the Chair advised that Doctor J. Hoyle Carlock was elected as Vice-Speaker of the House of Delegates.

The next office to be elected was that of Delegate to the American Medical Association.

The nominees for this office were Doctor Wilkie D. Hoover, Tulsa; Doctor E. H. Shuller, McAlester, and Doctor Marshall O. Hart, Tulsa. Doctor Gallaher called for futher nominations for this office. None were forthcoming.

The Chair called on the Tellers to conduct the vote by ballot, and advised that two ballots would be required.

Following the first ballot, a subsequent ballot was taken. The Delegates were advised that the names of Doctor Hoover and Doctor Hart were on the second ballot. At the conclusion of the second ballot, Doctor Gallaher announced that Doctor Wilkie Hoover had been elected as the Delegate to the A. M. A.

The next office to be filled was that of Alternate Delegate to the American Medical Association. The nominees for this office were Doctor Bruce Hinson, Enid; Doctor H. E. Denyer, Bartlesville, and Doctor Joe. L. Duer, M.D., Woodward.

Doctor Hinson requested that his name be withdrawn from the nominations. It was so ordered.

Doctor Gallaher called for futher nominations. Doctor Sturm nominated Doctor Marshall O. Hart, Tulsa, for the office of Alternate Delegate. Doctor Hart refused the nomination.

Doctor E. K. Norfleet, Bristow, nominated Doctor E. H. Shuller for the office of Alternate Delegate.

It was moved by Doctor Phelps that the nominations be closed. The motion was duly seconded and carried.

Doctor Blocksom nominated Doctor John E. McDonald for the office of Alternate Delegate. The Chair advised that the nominations had been closed, therefore, this nomination was out of order. The Chair also advised that two ballots would be necessary.

On the first ballot, Doctor Denyer was eliminated and a second ballot was called for. At the conclusion of the second ballot, Doctor Gallaher announced that Doctor Joe. L. Duer had been elected as Alternate Delegate to the A.M.A.

The next order of business was the election of Councilors and Vice-Councilors for Districts 3, 6, 9, and 12. The following Councilors and Vice-Councilors were elected by acclamation:

DISTRICT 3 C. M. Hodgson, M.D., Kingfisher
Henry T. Russell, M.D., Enid

DISTRICT 6 P. E. Russo, M.D., Oklahoma City
E. E. Shircliff, M.D., Oklahoma City

DISTRICT 9 R. L. Currie, M.D., Sallisaw
Burdge F. Green, M.D., Stilwell

DISTRICT 12 William T. Gill, M.D., Ada
M. E. Robberson, M.D., Wynnewood

Following this all officers elected were asked to come forward and be introduced.

President-Elect - A. T. Baker, M.D., Durant

Vice-President - Francis R. First, M.D., Checotah

Speaker of the House - Clinton Gallaher, M.D.,
Shawnee

Vice-Speaker of the House - J. Hoyle Carlock, M.D.,
Ardmore

Delegate to the A.M.A. - Wilkie D. Hoover, M.D.,
Tulsa

Alternate Delegate to the A.M.A. - Joe L. Duer,
M.D., Woodward

This completed the business of the 52nd Annual Session of the House of Delegates of the Oklahoma State Medical Association. The meeting was declared, by the Speaker, to be adjourned at 10:30 p.m.

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*Finnerty, F. A. Jr.; New York State J. Med. 57:2957 (Sept. 15) 1957.

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Are Doctors Becoming "Organization Men"

In a recent book written by William Whyte, titled "Organization Men," which reached the best seller list, is discussed the evolving tendency in America towards subordination of individual thought and action to conform to the group or organizational pattern of thought and action. Until recently, Whyte explains, Americans have lived, worked and succeeded in business and profession by a type of philosophy described as the Protestant ethic—namely hard work, thrift and innerconviction that the American competitive system is right.

Hower, this Alger theme seems to have become outmoded. Individual initiative and original thought, virtues once highly rated in American tradition, have ceased to be sign posts one should follow on the pathway to material success. What is becoming more important to assure oneself a successful career is how close one is able to conform to the thinking and action pattern of the various groups to which he belongs. And as in many instances this requires an adaptive compromise with what an individual really believes to be true, right or proper, it is small wonder that often emotional strain and inner conflict is induced.

As Whyte explains, the group itself has become deified. And it is to this god that the ambitious individual must give obeisance and worship. Is this way the sales curve on tranquilizing drugs continues on a rising pitch?

The Orangization Man's credo may be put down as follows: that whatever the group to which a person belongs sets down as desirable or true, the individual himself must also think as desirable or true; that "belonginess and togetherness" are essential virtues one must develop in order to get along in the world; that the group is a creative entity which can form judgments superior to an individual's judgment; that conformity, no matter how difficult or stress-

ful, somehow or other must be attained. The "Organization Man" believes sincerely that if he faithfully plans his life in accordance with these precepts it will not only give for him a material success but as an additional reward he will obtain for himself a state of happiness and the good life.

If one agrees that this type of thought is gaining validity in the American scene it could explain why the head of an industrial organization stated recently with great earnestness that "what is good for General Motors is good for the country." This could be paraphrased in "what is good for the Mayo Clinic is good for the medical profession."

But back to the original question—are doctors becoming Organization Men? Well, probably not so fast as many of their brethren in lay fields although few will argue there does seem to be a trend. Some proof lies in a recent survey of medical students which revealed that almost all of them hope after graduation to engage in some type of group or corporate practice.

On the surface, this can hardly be criticized for there are many material values and benefits to be obtained in practicing medicine within a group that is not possible in private practice: better hours of work, liberal retirement benefits, regular vacations; even the responsibility of patient care may be shared. But a fact not realized by most is that there is always a price to be paid for what one receives in this world. As someone has said: "there is no such thing as a free lunch!"

What is the price a doctor pays for the material advantages to be gained through group practice? Obviously, it is a loss of some part of his freedom. For when the organization to which a doctor belongs takes over those worries the lay details which every physician must concern himself with

—finance, retirement, insurance—to give him the material security not possible in private practice, that which he pays in return is a limitation of freedom to choose. Undoubtedly, in small groups the restriction is minimal and not irksome, but in larger organizations, governmental institutions or large private groups the limitation placed on personal freedom can be quite measurable.

It is a strange commentary that almost everyone, including the physician himself is convinced of the inevitability of the complete socialization of medicine. But yet, the profession is most reluctant to see this happen. Why are doctors as a group most militantly opposed to socialized medicine and nevertheless as individuals have such mental resignation to the inevitability of State med-

icine? A partial explanation may be that the antagonism against State medicine is lessening as a result of this growing expanding tendency of more doctors involved in group practice. This means that doctors as a class are becoming reconciled to accept the third party control over their practice with its consequent curtailment of freedom in order to enjoy the material benefits which they think accrue from group practice. And if this trend does persist undoubtedly, in the not too far future private practice as we know it today will be a thing of the past. The stage will then be set for the consolidation of all groups into one large group efficiently managed by the State. And one may predict that by that time there will be few physicians who will mind the change for most of them will have developed into good "Organization Men."—*D.W.B., M.D.*

Hats Off to the Medical Profession of Oklahoma

It has been almost a year since Public Law 880 providing for Federal Participation in the medical care of the four categories of dependency went into effect. An interview was sought with Mr. Rader to determine if the profession had cooperated and if there were alarming abuses.

At the close of business May 8, 1958 in the old age assistance group there had been 16,161 authorizations for hospitalization, and 14,503 physicians' claims paid. Since there is a lag between the time of authorization for hospital care and the time the physician's claim is paid, there are obviously very few physicians who are not presenting claims. The fact that on surgical cases where an anesthetic is required more than one claim is presented does not alter the picture very much, for about 90 per cent are medical cases (strokes, heart disease, etc.). While there are no comparable figures for this group prior to the present program, Mr. Rader states that these people have never before received anything like the type of care they are receiving now. He assured me that there have been no disturbing abuses on the part of the physicians.

From this, the House of Delegates could assume that the membership does not believe that these people have been adequately cared for in the past and that they think that the responsibility for their care is not medicine's alone but also the public's. It further means that the profession has accepted its Association's agreement with the Welfare Department in the matter of fees without recourse to any shenanigans to bring them up to their usual ones simply because public money is involved. It is the straight forward acceptance of a community responsibility that makes one proud of the profession.

In spite of its fine start, however, the program from our point of view is built on sand, because it embarks us on a program of socialized medicine the character of which depends on the integrity, the ability, and the sympathetic cooperation of one man, Lloyd Rader. I doubt if anyone could have done better and for a lesser man such an achievement would have been impossible. As has been pointed out before editorially, the only solid satisfactory way for the stigma of socialization and of government

medicine to be removed from this or any similar program is for the Association to press for the use of Blue Cross-Blue Shield as the administrating agency. This would mean that government would be paying for protection for its dependents just as we pay for our own dependent children. The obligation on the part of the government would be only a monetary one, not subject to manipulation by its administrative officials. The public, the medical profession and the hospitals are represented on the Blue Cross-Blue Shield Boards of Directors and their concepts would have to be considered in contractual negotiations now and in perpetuity. Surely a solid program that would be applicable to other similar public projects considered necessary by government could be built. The Public Welfare Department is in a position now to know where it stands financially with such a program. Now is the time to press for such an arrangement so that necessary legislation can be accomplished at the next session of the legislature.

An Objective Would Make Togetherness Possible

We now have two categories of citizens who are considered by government to require help for their medical and hospital needs. The older plan, Medicare, was not accepted by the State Associations of Ohio and Rhode Island, and this year Texas refused to renew the contract. This probably means that the Defense Department will ask its fiscal agent to pay claims according to a fee schedule in which the Texas Association will no longer have any voice. Medicare is administered by government but the fiscal agent is a hybrid made up of private insurance companies, Blue Cross-Blue Shield, and I believe in some states, the state Association. There is nothing wrong with the fiscal agents but this means little anyway except some capital and enough IBM machines.

In Oklahoma the government's fiscal agent for the hospital part of Medicare is Mutual of Omaha and for medical care Blue Shield. The younger plan in Oklahoma, that for the four categories receiving public assistance, is administered completely by the Department of Public Welfare. In the Council a motion to recommend to the House of Dele-

gates that the Association's acceptance of the D.P.W. plan for medical care of people on its assistance rolls be terminated lost by one vote.

This all adds up to:

1. The medical profession is divided in its opinion as to the necessity for government to get into the medical care business, and *yet two such plans have reached the operating stage in the last two years.*

2. These two plans are heterogeneous affairs started by government with an earnest desire for the medical profession to cooperate in such a way that the American system of medical care would be disturbed least. This desire has been met with acceptance, indifference, passive resistance and active resistance.

3. There is little hope of building anything solid in the way of a program until the medical profession is willing to let people who have government as a resource for their medical care use that resource. To deny them this is not only unrealistic but downright cruel.

If the medical profession could forget its worn out reactionary aphorisms, "No one can set my fees," and "We have always taken care of the poor without charge and will continue to do so," or at least ignore those who keep spouting them, it might be able to honestly appraise the current situation and be a force in solving problems. Consider what things would be like if millions of middle wage earners did not have some type of hospital and medical care protection against serious illness. This great group of people are independent medically only because of that protection. If they dropped it today, before many tomorrows, the government would be forced to tax their salaries and their employers and socialize medicine.

There are far too many people in the low income or no income group for the medical profession to provide free medical care. For the hospitals it is quite impossible. Without outside income a hospital can provide free care to patients only by charging the paying patients more. Is it better to put the burden of the hospital care of charity or part-pay patients on the guy who is himself

sick in the hospital, or on the public as a whole?

These people have to be cared for one way or another. Our government seems to think that the care would be more satisfactory if public funds were used. Funds have been provided for two large groups. The logical answer would be to provide the same type of hospital and medical care for these people that has been so successful with the great group of middle wage earners. Blue Cross-Blue Shield is the obvious choice for many reasons which have been cited, not just as a fiscal agent, but in the same manner that they now protect near one-fourth of the people of the state from the demoralizing financial strain of serious illness.—*B.H.N., M.D.*

Gamma Globulin and Rubella

While it has long been suspected by internists and pediatricians, and often doubted by obstetricians, the problematical risk of rubella occurring during pregnancy, with its potential complications of congenital heart disease, has been a source of great interest and controversy. One can find studies to support either hypothesis, which only proves that no carefully controlled data are as yet available in the medical literature. When the isolation of the rubella virus and serological tests for acute and convalescent serum specimens become widely popular, the answer may be immediately evident.

The most recent report on a carefully controlled and statistically analyzed study was reported at a recent medical meeting by Drs. Harold B. Houser and Norbert Schalet of the Department of Medicine, State University of New York, Upstate Medical Center, Syracuse. They followed a group of Air Force recruits during an epidemic of rubella on the base. Two groups of men received either 5 or 15 ml. of gamma globulin. A third group was given saline. Injections were given within 24 hours of the men's arrival at an Air Force

Base. All men in a 60-man group received the same injection. Each study group was composed of 300 men. 600,000 units of benzathine penicillin G was given intramuscularly initially and four weeks later unless contraindications supervened. Complete sick call records were maintained and examination of all hospital admissions was made. Serum specimens were obtained from all subjects initially and six and ten weeks later, covering the period of the study. Furthermore, other hospital admissions from the remainder of this Air Force Base were noted for diagnoses of rubella.

The total hospital admissions from the three groups (saline, 5 and 15 ml. of gamma globulin) were 29, 10 and 11, respectively. Of these 50 admissions, 27 were for nonstreptococcal respiratory disease, 14 for streptococcal infections, and only 9 for rubella. Of the latter group 7 admissions were from the saline group and the remaining two from the 5 ml. gamma globulin group. No admissions for rubella occurred in the 15 ml. gamma globulin group. During the study, 173 cases of rubella were admitted to the hospital from the remainder of the base population, and 108 of these had occurred during the month when rubella was most prevalent in the studied groups. It was concluded that gamma globulin, given before exposure and in adequate dosage, prevented rubella.

While Air Force recruits are not comparable to pregnant women, this nicely executed study shows that protection is clearly afforded by the adequate and early use of gamma globulin. Surely, if there is a question of a doubt of the possibility of rubella provoking permanent congenital deformities, particularly in the heart of the fetus, it is wise to protect the expectant mother and child from rubella. Perhaps further such careful studies may provide the answer to the relationship between rubella in the pregnant mother and the congenital anomalies all too commonly seen. Meanwhile, in the absence of this evidence, the burden of guilt is upon the physician who does *not* protect his expectant mother in the first trimester.—*T.H.H., M.D.*

AMNIOTIC FLUID EMBOLISM

R. G. OBERMILLER, H.D.

Case Report

Embolism is the fourth most frequent cause of maternal deaths. It is preceded in frequency by toxemia, hemorrhage and infection in the order given. Embolism, in the main, gives no warning of its imminence and leaves the obstetrician no opportunity to prevent its occurrence; merely to treat its sequelae.

Amniotic fluid embolism is the least frequent of the several types of emboli found in the maternal circulation. This is evidenced by the fact that only sixty-four cases have been reported in the past sixteen years in both British and American literature. This paper is presented not merely to add another case to the list, nor to add anything new in treatment, but to bring together in one paper the scattered facts concerning this clinical entity.

The infrequency of this entity is clear when only two cases were reported in 26,322 deliveries at St. Anthony's Hospital, Saint Louis, Missouri, between the years 1942-1952.³ Only three cases were in the first 24,000 births at the new Chicago Lying-In-Hospital and no more were observed in more than 26,000 additional births.⁴ These figures give an approximate incidence of 1:15,000 cases. One authority reports the incidence is 1:8,000 of all maternal obstetrical deaths. Thus to some of us in general practice, amniotic fluid embolism is indeed a thankful rarity.

Obstetricians have noted that an occasional death, due to hemorrhage in obstetrics, differed from deaths due to blood loss seen in association with medical or surgical conditions.³ For many years clinicians had commented that in certain circumstances, more particular in premature separation of the placenta, the blood appeared not to clot adequately and caused faulty uterine he-

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mostasis.⁶ The blood was described as behaving similar to that in hemophilia or following the introduction of snake venom into the blood stream.⁶

The occasional presence of placental elements within pulmonary vessels of women who died during the puerperium has been well known to European pathologists for many years.⁹ Experimental amniotic fluid embolism was produced in animals as early as 1927 by Warden² who did not correlate his findings with the possible clinical occurrence of sudden death or death following delivery of the parturient woman. Attention to the possibility of sudden death due to amniotic fluid embolism was proposed by Steiner and Lusbaugh.¹ In 1941 they reported seventeen cases.

With the observation that uncontrollable uterine hemorrhage was more frequent in cases of premature placental separation investigation was directed into three avenues: 1. Placental Factor, 2. Uterine Factor and 3. Chemical Factor.

1. Placental Factor:⁷ Leary and Hertig reported fourteen cases in which the placenta showed amniotic squamous cells in abnormal location. These investigators noted that there were slits in the placental membranes in cases of sudden maternal death

during or following delivery. The membranes were thick and boggy. The layers appeared to be separated by a fluid-like substance which varied from being clear and thin to creamy yellow and thick. Microscopic studies of these membranes showed the amnion and chorion to be separated by pink granular debris and epithelial squamous cells. From this evidence they concluded that the presenting foetal parts blocked the cervix during labor so that the amniotic fluid not previously drained away following the rupture of the membranes could no longer escape. Therefore with torn membranes and vigorous uterine contractions the incarcerated fluid could pull back the membranes from the uterine wall. Once the amniotic fluid reached the placenta margin it could easily enter into the superficial decidual sinusoids.

2. Uterine Factor:⁸ In a series of cases studied at the Boston Lying-In-Hospital from 1931 to 1949, a study was made of all maternal deaths where hysterectomy or autopsy followed caesarean section, ruptured uterus or post partum hemorrhage. A control series of twenty five uteri examined post partum for any reason except rupture were used. Also the lungs of all women who died within the first week post partum were studied. The findings of this investigation were:

a) Post partum uteri, all cases except rupture (twenty five cases); squamous cells found in uteri was one or four per cent.

b) Post partum hemorrhage with hysterectomy (eight cases); squamous cells found in uteri was two or 25 per cent. Autopsy (six cases); squamous cells found in uteri was one or 17 per cent.

c) Post caesarean section with hysterectomy (four cases); squamous cells found in uteri was one or 25 per cent. Autopsy (11 cases); squamous cells were not found.

d) Ruptured uterus with hysterectomy (31 cases); squamous cells found in uteri was 10 or 32 per cent. Autopsy (four cases); squamous cells found in uteri was two or 50 per cent.

e) Post partum autopsy (29 cases); no squamous cells found in uteri.

In only one instance of ruptured uterus with hysterectomy were squamous cells found in the lungs. Of 29 patients who came to autopsy, three or 10 per cent showed squamous cells in the lungs.

In 25 cases selected at random from those uteri removed post partum for any reason except rupture, one case of placenta accreta showed amniotic squamous cells between amnion and chorion. There were no cases in this series that gave evidence of entrance of amniotic fluid into vessels of a normal placenta site.

Of the patients that had post partum hemorrhage and who had hysterectomies, six died. Three of these showed evidence of amniotic squamous cells present—two with placenta accreta and the third with a retained placenta delivered manually.

Of those patients who had hysterectomy, following caesarean section and had squamous cells in the lungs but none in the uterus, two had placenta praevia and one had uterine bleeding due to abruptio placentae. No evidence of amniotic fluid was found in the vessels of a normal placental site. This fact demonstrated that amniotic fluid can enter the maternal circulation via the intervillous space if the placenta is incised.

3. Chemical Factor: The possibility of a chemical factor has interested a number of investigators. The efforts have been primarily directed to answering the question "Why do these women bleed?"

A review of the literature by Shotton and Taylor¹² revealed the significant fact that those patients with amniotic fluid embolism who survived their initial anaphylactic shock died a few hours later from post partum hemorrhage.

Weiner, Roby and Reid¹ postulated that the hemorrhagic phenomena in patients with amniotic fluid embolism was the result of intravascular clotting. They further postulated that this clotting defibrinated the maternal blood which was then unable to clot in a normal manner. This theory is further strengthened by the findings of Tuller²¹ and others.³¹

Mills¹⁰ found in animal experiments that the slow intravenous administration of small amounts of thromboplastin may result in intravascular defibrination.

It was subsequently demonstrated that uncontaminated amniotic fluid collected during labor contained a coagulant that behaved like thromboplastin in its effect on oxalated plasma and had the ability to reduce the clotting time of hemophilic blood from fifty four minutes to four minutes.

If it is correct that defibrination is a result of intravascular coagulation, one might expect decreases in concentration of other factors involved in clotting. This was found to be true in those few cases of afibrinogenemia in which the coagulation mechanism was adequately studied. These patients presented a decrease in platelets,¹⁸ and in prothrombin,¹⁹ and in accelerator factors.²⁰ Further tests showed that amniotic fluid did not contain fibrinogen, thrombin, prothrombin accelerators, heparin or fibrinolytic accelerators.^{13, 18, 19, 20, 21}

Afibrinogenemic states had been observed in several forms of premature separation of the placenta and in the occasional case of Rh negative patients in whom the foetus died of blood incompatibility and was retained thereafter in utero for several weeks. It was believed that this is a consequence of the retention of the autolized products of conception with release of thromboplastic substance rather than being related to the Rh factor.¹³ Seegers and Schneider have shown that the decidua is especially rich in thromboplastic activity.¹⁵

From the observations these investigators postulated that amniotic fluid contained a thromboplastic material which gained entrance into the systemic maternal circulation where it defibrinated the blood and caused a fatal hemorrhage.^{15, 16, 17} In fact, the fibrinogen level in amniotic fluid embolism may drop with such great rapidity both spontaneously and after therapeutic administration of blood as to indicate its destruction or consumption.²²

Gunis in 1952 first questioned amniotic fluid as the cause of sudden death in obstetrics basing his opinion on a personal resume

of 25 deaths attributed to amniotic fluid embolism.²⁵

Hunter, Scott, Schneider and Kreiger¹³ in 1956 also questioned the theory of the direct role played by the amniotic fluid in sudden maternal death. Their experiments showed that the auto infusion of the entire amount of amniotic fluid of a bitch near term does not act as a trigger mechanism for the production of the pathologic entity known as afibrinogenemia. These four investigators then injected both clear amniotic fluid and amniotic fluid stained with meconium into the circulation of the pregnant dog. Neither bitch died.²³

These men do agree with the theory of a thromboplastic-like substance, the source of which is in the placenta, causing afibrinogenemia. In view of Seeger's and Schneider's findings, as previously stated, that the decidua is rich in thromboplastic activity¹⁵ these investigators clinch their theory on the experiments of others. Page, Fulton and Glendening,²⁴ in 1951, produced defibrination in dogs by the intravenous injection of a homogenized aqueous extract of human placenta. Therefore they concluded that amniotic fluid is merely the vehicle rather than the primary cause of hemorrhage following amniotic fluid embolism.

In the most recent reference to this theory, Phillips²⁹ reported to the New York Academy of Sciences that in women with such hemorrhages, the levels of both profibrinolysin—precursor of the enzyme that lyses fibrinogen—and its inhibitor are often below normal. She believes this points to the possibility that the proenzyme has become exhausted in the activation process, and the activated enzyme then destroys fibrin and fibrinogen, thus deterring clot formation.

The obstetrician has no warning of impending disaster. The usual symptomatology is sudden pain in the chest, mild at first but becoming progressively more severe. The patient is, at first, very restless, coughs and may produce a pink frothy sputum. Rales are heard in the chest and the blood pressure drops to the point of imperceptibility. The uterus becomes boggy and fails to hold its contracted state even

with pitocin drip. The patient expires either from the initial shock or from loss of blood.^{27, 31, 32}

The patient is usually a multipara. The labor is hard and tetanic contractions are noted.¹ Review of the literature of 46 cases showed induction of labor with pitocin in eight, quinine in two and castor oil in two. There was either an actually or relatively large foetus and the period of gestation was prolonged, ranging from 41 to 48 weeks. In six cases, the interval from the last pregnancy was from three to 20 years which indicated a more or less inelastic cervix. Two patients had had previous cervical lacerations and conizations.⁵ Other factors that predispose to amniotic fluid embolism are: placenta accreta, placenta praevia, abruptio placenta and polyhydraminon.⁸

The only case of amniotic fluid embolism with fibrinogen levels markedly below the minimal requirements for clotting (100-500 mg/100 c.c.) in which the patient survived following definite replacement therapy was reported by Weiner, Reed and Roby.^{11, 17} This was achieved by the use of fibrinogen (Cohn's fraction #1) and whole blood. This patient received 18 gms. of fibrinogen and seven units of citrated blood. Calcium gluconate was empirically given because of the large amounts of sodium citrate. On the fifth day because of oliguria an artificial kidney was used. She remained in a state of oliguria until the twelfth day when there was a spontaneous diuresis. Due to continued vomiting and poor nutritional state the patient, one month post partum, was treated by dialysis with the artificial kidney, a procedure which required heparinization. One hour following dialysis a brick red uterine hemorrhage occurred. This bleeding appeared to be arterial and was controlled by the administration of protamine. The patient was discharged two months post partum as cured.

In all reported cases of amniotic fluid embolism proven by autopsy the pathologic findings in the lung were similar.^{27, 33} The cut surface of the lung showed numerous areas of amniotic and meconium emboli. Droplets of glistening yellow material could be expressed from the arterioles and a smear of this material clearly showed lanugo hair,

squamous epithelial cells and other amniotic debris.

Prevention of amniotic fluid embolism, if there is possible prevention, should be directed in this manner:

1. Introduction of labor with oxytoxics should not be attempted in elderly multipara.

2. Early recognition of abnormal labor such as placenta praevia, partial abruptio placenta dystocia.

Treatment of amniotic fluid embolism should be attempted in this manner:

1. Tetanic uterine contractions controlled by the use of general anesthesia and by the judicious use of magnesium gluconate.

2. Abolish reflex vascular spasm of pulmonary vessels with papaverine.

3. Cardiac depressor reflexes from lung may be controlled with atropine.

4. Pulmonary edema controlled with aminophylline.

5. Blood transfusions to replace blood loss, avoiding banked blood which may contain large amounts of profibrinolysin.

6. Cortisone for anaphylactic shock.

Case Report

The patient was 37 years of age, white, Para V, Gravida VI. A brief explanation of this case is necessary. On the afternoon of June 19, 1957, a small child on a rural line called my office stating in a hysterical voice that her mother was having a baby and wanted a doctor. The directions given my secretary were garbled. A neighbor cut in on the conversation and gave the direction. A telephone operator, who had been listening in because of the child's hysteria, asked if an ambulance should be sent. This was recommended by my office. Above all the conversations a woman in the back ground could be heard crying with pain. The hospital was notified that the patient was coming in. She was admitted at 4:30 p.m. and taken immediately to the delivery room. I was called and the primary need was to deliver this woman as the head was crowning. The patient was delivered at

4:42 p.m. I had noticed on entering the delivery room that her skin was dark. She was returned to a convalescing room at 5:05 p.m.

We, the attending nurse and myself, noted frothy pink sputum on her lips, dyspnea and increasing cyanosis. She began to have a more than normal uterine lochia, dark in color. Generalized pain was her initial complaint. The blood pressure was nil and the pulse rapid and thready. The skin was clammy due to profound shock.

Levophed was given by intravenous drip. Morphia gr $\frac{1}{4}$ was given for patient's complaint of back pain and pain in the lower left extremity which had large varicose veins. Morphia was repeated. Atropine gr 1/100 was given intravenously as well as solu cortef 100mg. Oxygen by mask was instituted. Cedilanid one c.c. was given with the thought of preventing cardiac failure.

Consultation was held with three local physicians and the physician from a neighboring clinic where the patient had had prenatal care and was expected to be confined. Pulmonary embolism, amniotic fluid embolism and polycythemia with multiple emboli and vena caval embolus were suggested.

LABORATORY REPORT: 18 gm. Hb, 6.8 rbs, 32,200 whb. Differential count: 1% basophile, 1% esinophile, 21% stabs, 45% segmented, 30% lymphs and 2% monocytes. This was repeated in one hour with the following report: 16.35 gm. Hb., 5.75 rbc, 49,700 wbc. Differential count: 2% basophile, 39% stabs, 43% segmented, 15% lymphs and 1% monocytes. The difference between the two counts showed the approximate blood loss. Catheterized urine specimen was reported as clear, straw color, reaction 5.5 specific gravity q.n.s., albumin one plus, sugar negative, acetone negative. Microscopic: occasional wbc, 40-60 rbc per high power field and many squamous epithelial cells. The blood specimen was discarded after eight hours and the technician reported that it had not clotted. A roentgenogram of the chest was inconclusive. The left side was perhaps less expanded than the right. The left lung tissue was less

dense than that on the right. E.C.G. was reported as showing sinus tachycardia, right axis deviation, right ventricular strain; findings consistent with pulmonary embolism.

While the patient was still conscious a history was obtained denoting a spontaneous rupture of the membranes while the patient was up doing her work. The contractions became very severe and she was unable to restrain her cry of discomfort. Her husband, who had been in town, had arrived at home as the ambulance was leaving. He noted the pink frothy sputum but thought his wife had bitten her lips. That this labor was very different from her preceding labors this mother was aware. Before leaving home she kissed all her children and told them that she would not be back.

This patient expired four hours and 45 minutes after hospitalization. Perhaps she would have expired with any treatment but blood was not given in view of the high blood count and the fact that uterine blood loss was not excessive. No hematocrit had been made.

Autopsy was performed and the pathologist's report concerning the lungs was: "An extremely interesting finding is the frequency with which amniotic type fluid and cellular contents can be found within many of the small vessels. Rolled type epithelia cells, apparently of squamous type, are identified within the lumen of many of these vessels. In addition to these cells, brown stained amorphous like material is also seen within the lumen along with red blood cells. On careful high power search, a surprisingly large number of those blood vessels show the same findings, including one large vein which in addition shows several definite hairs within the lumen and around these hair shafts and epithelial cells can be seen laminated clots which we interpret as being agonal in type.

"To the best of our knowledge, this is the first time in our experience that an unequivocal amniotic fluid embolus has been demonstrated in the lungs of an obstetrical patient dying during labor."³⁴

Conclusion: Amniotic fluid embolism is a definite clinical entity which produces shock

and death and is also the vehicle carrying thromboplastic substance from the placenta into the maternal circulation causing afibrinogenemia which in turn produces uncontrollable hemorrhage.

A review of the literature has revealed a pattern of facts which is associated with this entity.⁵

1. Amniotic fluid embolism usually occurs in patients in the older age group.

2. A multipara is most frequently encountered.

3. The prenatal course is usually uneventful.

4. There is a frequency of post term pregnancies with above average size foetuses.

5. The labor is usually characterized by strong or tetanic uterine contractions.

6. The presence of one or more of the findings of toxemia may be present, i.e., excessive weight gain, albuminuria, edema of the lower extremities and some degree of hypertension.

7. The pattern of demise is usually constant. The initial symptoms are restlessness and chilly sensations followed rapidly by dyspnea and cyanosis. A profound shock develops rapidly and is irreversible in spite of heroic therapy such as oxygen, blood, fluids, stimulants, etc.

8. If the patient survives the initial shock she expires due to uncontrollable hemorrhage produced by the defibrinogenizing of the blood by some type of thromboplastic material which has its source in the placenta.

9. The diagnosis is made post mortum with findings of amniotic fluid content and meconium in the smaller pulmonary vessels.

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Diabetes Mellitus *at the* USPHS Indian Hospital, *Lawton, Oklahoma -- 1951-1955*

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The Indian population served by the USPHS Indian hospital at Lawton, Oklahoma, consists largely of Kiowa, Comanche, Apache, and the Five Civilized Tribes. The staff at this hospital has had the impression that more diabetic patients are seen per patient admission than would be expected, unless the incidence of diabetes mellitus is higher among this group of Indians than among the general population. There is little information to be found either to support or disprove this contention. It is also obvious to us that the admission policy at this hospital differs from that at local private hospitals because of economic and geographic problems peculiar to our patients. This study, therefore, was undertaken as a beginning effort to explain the significance, if any, of the high incidence of diabetes mellitus among the populations served by the hospital. Figures (see below) compiled by the Oklahoma State Department of Health led us to believe we might find a greater incidence of diabetes among the Oklahoma Indian.⁸ Several previously published studies of diabetic patients (see below) were reviewed so that we might compare our findings on the extent of the diabetic population with the related findings of others.

The cause or causes of diabetes mellitus are not known. Studies have provided clues as to the groups among which the disease is most likely to occur. Several statements can be made about the diabetic population, according to previous studies. There is a higher incidence of the disease in higher income groups; among sedentary workers;¹ and in the population over 45 years of age.² The maximum susceptibility appears to be in the sixth decade of life.² The average age of the female diabetic is 56.7 years and of the male diabetic 55.6 years, with one-half of all diabetics over age 60, and one-fourth between the ages of 50 and 60.² Obesity defi-

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nately seems to be related to etiology, as 83.3% of the females with the disease included in one study were overweight.² In the United States at large, female diabetics comprise 62.4% of the diabetic population and the female rate begins to exceed the male rate at age 45.²

In a study of diabetes among the Arizona Indians in 1940, Joslin concluded that diabetes is seen less frequently among the Navajo than among the population at large.² According to Joslin, the 1945 death rate from diabetes among North American Indians was 1.9 per 100,000, a comparatively low rate.² However, according to figures released by the Oklahoma State Department of Health, on resident deaths from diabetes by race in Oklahoma from 1952-1955, the rate for the Indian population exceeded that for both the Negro and the white population. The rate was 23.1 per 100,000 among Oklahoma Indians, 21.6 for the Negro population and 13.4 per 100,000 for the white population. The age-adjusted death rates from diabetes mellitus by race in Oklahoma in the period 1949 to 1951 were 32 per 100,000 for the Indian population, 16.7 per 100,000 for the Negro population, and 13.3 per 100,000 for the white population. It was concluded that there was a significant difference between the Indian population's death rate from diabetes and that of either the white or Negro populations.⁸ It should be pointed out that these figures were based on a total

estimated Oklahoma Indian population of 53,769.

In another study on the incidence of diabetic admissions to an out-patient clinic at the University of Pennsylvania, 4.4% were diagnosed as having diabetes mellitus. Of these, 50% were obese, 56% had some degree of degenerative vascular disease, and 25% had hypertension, while cataracts were found in 4%.

In another out-patient study involving 103 diabetic patients, obesity (more than 35% overweight) was seen in 68%, major hypertension in 19%, peripheral vascular complications in 32%, cataracts in 22%.⁵

In other studies, the incidence of vascular complications was found to be 62% of the total number of diabetics; of those with hypertension 24%; of those with all types of infections and of those with urinary infections 15%, while 54% of the diabetics were found to be obese.⁶ In yet another study, cataracts were thought to occur more frequently among diabetics than among the general population.⁹

According to William's Textbook of Endocrinology, the greatest incidence of diabetes mellitus is in the age group between 40 and 70. Hypertensive cardio-vascular disease is five times more common among diabetics than among the general population, and cataracts are seen in 0.4% of patients with diabetes.³

In the population area which the USPHS Indian hospital serves, there are two other local hospitals. The Comanche County Memorial Hospital, a 100 bed county general hospital, had 11,540 admissions for all reasons in the five-year period covered by this study. In 68 of these a diagnoses of diabetes was made, a percentage of 0.6%.

At the Southwestern Hospital, a private 70-bed hospital, there were 13,337 admissions for all reasons in the same period of time. Of these, 178 were for diabetes, a percentage of 1.3%.

It is our intent to compare the records of our hospital over the same five-year period, with the figures found among the diabetic population as stated in the other studies cited above.

Procedures

The charts of all patients with a diagnosis of diabetes mellitus admitted to the USPHS Indian Hospital at Lawton, an 80-bed general medical facility, between January 1, 1951, through December 31, 1955, were obtained and the following data gathered on each admission: age, sex, habitus, blood pressure, fasting blood sugar on admission, the amount of insulin taken per day on discharge, the chief complaint of the patient or the reason why he or she came to the hospital, and any diagnoses other than diabetes noted on the patient's discharge sheet. The following data were obtained: total admissions for all reasons over the period covered, total diabetic admissions, the total number of diabetics seen as individuals in the period covered, the percentage of diabetic admissions, the average age per admission, the number of admissions per patient, the ratio of males to female admissions, the incidence of obesity (as determined by gross observation) the age of distribution, the incidence of hypertension (over 150 systolic and 100 diastolic), the fasting blood sugar on admission, the amount of insulin recommended on discharge, the chief complaint or reason for coming to the hospital, and the diabetic complications noted on the patient's discharge sheet.

Results

In the five-year period covered in this study, there was a total of 9,978 admissions for all reasons. Of these, 430 were for diabetes mellitus, giving a rate of 4.4% as compared with 0.6% of all admissions at the Comanche County Memorial Hospital (68 out of 11,540), and 1.3% at the other local hospital (178 out of 13,337). There were 2.7 admissions per diabetic patient. There were 291 female admissions or 68% of the total which compares with the rate of 62.4% of females in the diabetic population at large.² Male admissions numbered 139 or 32% of the total.

The average age was 57.3 years with 76% of our patients between the ages of 50 and 80. See Table I.

Obesity was found in 52% of our admissions and the incidence of hypertension

YEAR	ADM. TOTAL	AGE—ADMISSIONS AND PERCENTAGE						
		0-19	20-29	30-39	40-49	50-59	60-69	70-79+
1951	69	0-0%	0-0%	12-18%	4- 6%	23-33%	13-20%	17-23%
1952	103	0-0%	0-0%	14-13%	18-18%	26-25%	19-19%	26-25%
1953	108	0-0%	0-0%	11-10%	16-15%	26-24%	32-30%	23-21%
1954	71	0-0%	1-1%	3- 4%	6- 8%	19-27%	25-35%	17-24%
1955	79	0-0%	3-4%	6- 7%	10-12%	22-28%	27-35%	11-14%
Total Five Year Period:								
	430	0-0%	4-0.9%	46-10%	54-12%	116-27%	116-27%	94-22%
		326-76% between 50-80 years						

TABLE I AGE DISTRIBUTION

YEAR	ADM. TOTAL	ADM. OBESE	%	ADM. HYPERTENSIVE	%
1951	69	34	50%	20	29%
1952	103	50	48%	16	15%
1953	108	51	47%	18	17%
1954	71	36	50%	19	27%
1955	79	62	77%	23	29%
Total Five Year Period:					
	430	223	52%	96	22%

TABLE II INCIDENCE OF OBESITY AND HYPERTENSION

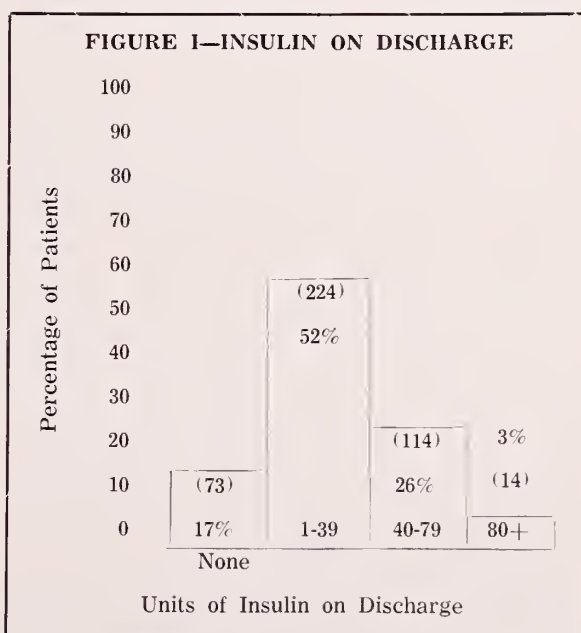
among our patients was 22% of the total admissions. See Table II.

The fasting blood sugar in this series of patients was under 200mgm. per 100 cc. in 214 patients or 50%, 200-300mgm. per 100 cc. in 170 patients or 40%, over 300mgm. per 100 cc. in 24 patients or 5%, and in 22 patients or 5% the values were undetermined. Thus 90% or 384 of these admissions had a fasting blood sugar at the time of admission of under 300mgm. per 100 cc.

Upon discharge, 73 of the patients or 17% were on no regimen of insulin therapy. Fifty-two percent or 224 patients were taking between one and 39 units of insulin per day, and 114 or 26% were taking between 40-79 units of insulin per day. Only 3% or 14 patients were taking over 80 units of insulin daily. See Figure I.

Among the chief complaints or reasons for the patients' coming to the hospital in our study, diabetic regulation accounted for 33% (143 admissions), infections for 22% (95 admissions), and actual symptoms—polyuria, polydipsia, and weight loss—for 13% (56 admissions). Other reasons (such as diarrhea, arthritis, injuries, OB, etc.)

accounted for 34% (147 admissions). Of the complications noted on the discharge sheets, circulatory complications accounted for 31% of the total (135 admissions). Infections accounted for 22% (95 admissions), and renal disease for 7% of the complications (28 admissions). Other complications accounted for 27% of our series



(116 admissions) such as heart disease, gastrointestinal tract disease, blood disorders, and joint disease.

Conclusions

It may be concluded that in the five-year period covered by this study there were approximately four times as many admissions for diabetes mellitus at the USPHS Indian Hospital as at the other two hospitals in this area. The data reflect admissions only, not the actual number of individual diabetics seen. This would be consistent with the figures released by the Oklahoma State Department of Health of age-adjusted death rates from diabetes among the Indian population as compared with rates for the white and Negro population.⁸

The average age of our diabetic patients was approximately the same as that quoted for diabetics among the population at large, with the majority of our patients falling into the same age groups as the diabetic population in other studies,^{1, 2} although juvenile diabetics were conspicuous by their absence in this group. There were approximately 6% more females among our admissions than in other studies sited.^{1, 2, 3}

The fasting blood sugar on admission in 87% of this group was under 300mgm. per 100 cc. Over one-half of the patients (58%) were taking between one and 39 units of insulin per day on discharge. Only 3% of the cases required more than 80 units of insulin per day. Diabetic regulation and infections accounted for about one-half of diabetic admissions. The incidence of obesity, hypertension, cataracts, and renal disease in this series was approximately the same as that noted in the other studies cited.^{4, 5, 6, 7, 9} The incidence of circulatory disease was less.⁶

There were more diabetic admissions at the USPHS Indian Hospital in the five-year period covered by this study than there were at the other two local hospitals when the total admission picture is surveyed. The peculiar economic and geographic situation of our patients is such that we probably admit patients for regulation who might not be admitted to a private hospital. This may account for our increased percentage of diabetic admissions. Therefore, we cannot

draw definite conclusions concerning the actual incidence of diabetes mellitus among the Oklahoma Indian in this area as compared with the incidence among non-Indians. However the age of incidence, ratio of females to males, incidence of obesity, incidence of hypertension, amount of insulin required on discharge, chief complaint, and diabetic complications were about the same as those cited in other studies of the diabetic population. Similar figures involving the characteristics of diabetic admissions to the other local hospitals are not available at this time for purposes of comparison.

Summary

The total number of diabetic admissions at the USPHS Indian hospital over a five-year period from 1951 through 1955 was studied in regard to age, sex, weight, blood pressure, fasting blood sugar on admission, amount of insulin recommended on discharge, chief complaint, and complications noted on the patient's discharge sheet. The percentage of diabetic admissions was compared with that of other hospitals in the area, and the above mentioned factors compared with similar data for the diabetic population in other studies.

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EVALUATION *of* ENDOCRINE FUNCTION*

JOHN W. DeVORE, M.D. and GEORGE J. HAMWI, M.D.

The hypothesis that Hodgkin's syndrome may be a manifestation of a constitutional disturbance has been discussed by Hoster and Dratman¹ in their comprehensive review of the possible etiologic factors producing the disease. No direct evidence of an endocrine or metabolic etiology has been presented. The lower incidence and more chronic course of Hodgkin's disease in females than in males is well established. From this various investigators have reasoned that the disease process may be influenced by one or more sex hormones, although there is no report of such an effect following the administration of hormones. Epstein's² conclusion that the mortality in females seems to be greater when their physiologic processes are most like those of males has been challenged by other investigators.

The possibility that an endocrine abnormality might be an etiologic factor has been suggested by experimental data on the influence of hormones on the reticuloendothelial system, since Hodgkin's syndrome is a disease involving the reticulum cells with an associated variable lymphoid hyperplasia.¹ Lymphoid hyperplasia is seen in hyperthyroidism in humans and following castration and adrenalectomy in mice. Increasing adreno-cortical steroids by substitution or stimulation of the adrenal glands produces lymphopenia. Thus thyroid, gonadal, and adrenal hormones, through influence on the reticuloendothelial system, have been linked indirectly to Hodgkin's disease. Such reasoning is invalid in the absence of a demonstrable direct influence of any of these hormones on the course of the disease or of a deviation from the normal activity of the endocrine glands in patients having Hodgkin's syndrome.

Adrenocorticotrophic hormone and the cortical steroids have been used in the treat-

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This study is from the Hoster Memorial Laboratories, The Ohio State University Medical Center, Columbus, Ohio.

ment of Hodgkin's disease to give symptomatic relief, to carry the patient through a period of bone marrow depression until other therapy could be used and to control secondary hemolytic anemia.³ Such therapy has not affected the basic disease process. No report of a direct effect of the thyroid or gonadal hormones is available.

The present investigation was undertaken to determine whether any endocrine abnormality occurs in association with Hodgkin's disease or results from the therapy used.

Material and Methods

Fifty-three patients having Hodgkin's disease were selected at random from the

*This investigation was supported in part by a research grant number C-2604N55 from the National Cancer Institute, of the National Institutes of Health, Public Health Service.

Lymphoma Clinic at The Ohio State University for investigation. The stage of development of the disease in each patient was classified according to the following standards: An acute case is one in which death occurs within one year of the onset of symptoms; a subacute case, within three years; and a chronic case, over three years. An early case is one in which regional nodes have been found in one or two areas only, with no symptoms of disseminated disease. If there has been recurrence in one or more areas without symptoms of other local disease, the case is considered to be intermediate. When disseminated disease or toxic, hematologic or neurologic symptoms and signs develop, the patient is in the late stage of the disease. The terminal stage is one in which the patient is no longer responsive to therapy.

Of the 53 patients examined, 34 were males and 19 were females. Of the males, nine subsequently proved to be subacute cases with three in the early and six in the late stages. The remaining 25 were chronic cases, of whom 10 were in the early, seven in the intermediate, and eight in the late stages of the disease. Of the 19 females, all were chronic cases, seven in the early, seven in the intermediate, four in the late, and one in the terminal stage of Hodgkin's disease.

At the start of the study, a detailed endocrine history was obtained from each patient. Since each was being seen at monthly or shorter intervals, an endocrine history was obtained on each visit for a period of at least six months. Whenever possible all tests were obtained on each patient. The tests were chosen as being the most satisfactory screening tests for endocrine dysfunction available at the time of the investigation (1949).

The epinephrine-eosinophil test as originally described by Thorn was thought to be a measure of stress and therefore an indication of the ability of the anterior pituitary to respond to such stress. A total eosinophil count is performed prior to injection of epinephrine or ACTH. It was theorized that epinephrine stimulates the secretion of ACTH; ACTH in turn activates

the production of adrenal cortical steroids; and the latter produces, in normal individuals, a fall in the eosinophil count of at least 50% in four hours. Since completion of the investigation being reported the hypothesis on which the epinephrine-adrenalin test is based has been modified.⁴

The basal metabolic rate and serum cholesterol levels have been used as a measure of thyroid function. Basal energy production in the normal individual is an indication of the level of thyroid function. In patients having Hodgkin's disease, as in patients having other diseases, energy production may be increased by activity of the disease process independent of an increase in thyroid hormone. The serum cholesterol is affected by renal disease and the acute obstructive jaundice and may fluctuate as much as 80 mgm. percent from day to day. In the absence of other diseases the range in a patient having normal thyroid function is 110 to 280 mg. percent. The level varies inversely with that of thyroid activity. Thyroid function was further evaluated by the history of skin texture and color; hair texture, rate of growth and rate of loss; nail texture; and muscular strength and tremors.

The Sulkowitch test is a qualitative test of urinary calcium excretion. As such it has been used as a screening test, which, if renal function is normal, is crudely indicative of the level of parathyroid function.

The Robinson-Kepler-Power test is an effective and simple test of adequate adrenocortical function. In the presence of normal renal, cardiac and hepatic function, approximately 90% of patients having proven hypoadrenocorticism will have an abnormal response.

The Thorn test is a measure of adequate adrenocortical response to injection of ACTH if there is a fall in eosinophils of 50% in four hours. As excretory transformation products of certain adrenocortical steroid hormones and testicular hormones, the 17-ketosteroids in a 24-hour urinary specimen give an approximate index to the secretory activity of the two glands. Adrenomedullary hyperactivity in produc-

tion of epinephrine was studied by questioning the patients concerning headaches, irritability, cardiac and gastrointestinal symptoms, sweating and skin color changes. The endocrine history in each patient included effects influenced by the adrenal cortex such as skin texture, acne, pigmentation, muscle strength and muscle cramps.

The glucose tolerance test is primarily a measure of pancreatic function. Because of the necessity of preserving veins in some patients for nitrogen mustard and other intravenous therapy, an oral glucose test and microanalysis of the glucose content of the capillary blood was used. When possible, an intravenous glucose tolerance curve was performed on any patient with an equivocal response to oral glucose.

The gonadal function in males was studied by determination of the 24-hour urinary excretion of 17-ketosteroids as previously discussed, since in the adult male the testes are responsible for about one-fourth of the total 17-ketosteroid excretion. Sperm counts were obtained to determine testicular function. Basal body temperatures were plotted by the females to determine when ovulation occurred. The patients were questioned concerning libido and frequency of coitus. Females were asked also to give their menstrual history and the presence of breast changes or premenstrual tension.

Results

Repeated reviews of the endocrine history with each patient recorded over periods of six to twelve months revealed no consistent symptoms of endocrine dysfunction. During periods of activity of Hodgkin's disease occasional patients developed dryness of the skin, nervousness and insomnia which responded to nitrogen mustard or x-ray therapy and were not accompanied by other symptoms or signs of endocrine dysfunction. Two patients were receiving treatment for hypothyroidism, one of whom had been treated for many years prior to developing Hodgkin's disease, and one had developed a deficiency following x-ray therapy over cervical nodes. Following completion of the study one patient developed classical signs and symptoms of hyperthyroidism which responded to treat-

ment with radioactive iodine. All three were females. Loss of libido during periods of disease activity was proportional to the degree of resulting debility. It occurred but was transient following nitrogen mustard or x-ray therapy, with recovery of normal libido within four to eight weeks.

Cholesterol determinations were obtained on all patients, with determinations before and after nitrogen mustard therapy on two patients. In those two patients, although the change in the total cholesterol was within limits of error and normal variation the percent of esters decreased from 74% to 64.3% in one, and from 74.7% to 44.3% in the other. No reports of similar changes are found in the literature.

The basal metabolic rate was obtained in 50 patients. Twelve patients had a BMR greater than plus 10, of whom two were children, two were uncooperative during the examination, and eight had symptoms and signs of disease activity. Repeat determination on three patients after nitrogen mustard therapy showed a decrease from a pre-therapy level from plus 30 to minus 18, from plus 10 to minus 40 and from plus 19 to plus three respectively. The first and third of these patients were those whose cholesterol esters had decreased following nitrogen mustard therapy.

Glucose tolerance tests were obtained on 50 patients, of whom six had abnormal curves with oral glucose. When retested using intravenous glucose, three of the six had normal curves. Two patients had slightly prolonged hyperglycemia. One patient with advanced metastatic liver involvement had a prolonged hyperglycemia.

Twenty-four hour 17-ketosteroid excretion studies were obtained in 43 patients with no significant deviation from normal in any patients. Robinson-Kepler-Power water excretion tests were obtained on 44 patients. Three patients had no hourly specimen greater in volume than the night specimen. Two of these patients had metastatic liver disease. The third was uncooperative, and the accuracy of the collection of specimens is questionable.

Thorn tests using adrenalin were obtained

on 48 patients. Eosinophil counts were too low to give accurate results on two patients. Only five patients failed to show a definite response to adrenalin. Of these five, three had ACTH tests with normal response. Since completion of the original investigation ACTH tests have been done on over 30 unselected cases having Hodgkin's disease with a uniformly normal response.

Sperm counts were obtained on 19 patients, of whom one had a count of one million and eight a count of zero. All nine of the latter had received x-ray therapy over the inguinal region, and only one, whose therapy was recent, is known to have had a return to normal in the sperm count. Basal body temperature charts were recorded by 16 patients and were normal in eight. Two patients had fever so that the charts could not be interpreted. Charts confirmed the absence of ovulation in two pre-pubertal, two post-menopausal, and one post-irradiation, and one surgical menopausal patients.

The Sulkowitch test was performed on the urine of 36 patients, of whom one had a negative and one a plus four test reported. Those patients were found to have normal values for serum calcium, phosphorus and alkaline phosphatase.

Summary and Conclusions

An evaluation of endocrine functions in a group of 53 patients having Hodgkin's disease, 34 males, and 19 females, is reported. Although there have been many refinements in technique for evaluating hormone activity since the completion of this investigation, the techniques utilized should be adequate as screening procedures.

No gross abnormality of pituitary, thyroid, pancreatic, or gonadal function results directly from Hodgkin's disease. Spermatogenesis, ovulation or thyroid function may be depressed by x-ray therapy given to adjacent areas involved with Hodgkin's disease.

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ACQUAINTANCE, *n.* A person whom we know well enough to borrow from, but not well enough to lend to. A degree of friendship called slight when its object is poor or obscure, and intimate when he is rich or famous.

*From the Devil's Dictionary by Ambrose
Bierce — Sagamore Press, Inc.*

COBALT 60 THERAPY

DAVID LOWRY, M.D., JOHN R. DANSTROM, M.D., HAVEN MANKIN, M.D.

Cobalt 60 therapy is essentially a form of supervoltage radiation and is for practical purposes identical with 2-3 million volt X-ray generators.

Cobalt 60 has been in use only since 1951 but supervoltage therapy has been studied in isolated centers for over 20 years.

The following is a brief review of the physical advantages of cobalt and supervoltage therapy:

First: The severe skin reaction which is inevitable with high doses of conventional 200 KV therapy can be avoided.

Second: The energy of the radiation beam is not scattered outside of the treated area—making less radiation to the surrounding tissue and the rest of the body. The systemic effect is therefore less, with less radiation sickness and less effect on the blood count.

Third: A greater percentage of the energy reaches the deep tissues making a larger depth dose possible.

Fourth: There is less absorption by bone and cartilage. Therefore the danger of cartilage and bone necrosis is greatly decreased.

All of these physical properties are additive for the patient's benefit in that larger tumor doses can be delivered with minimal effect on the skin, less systemic effect, and better tolerance in the deep tissues surrounding the tumor.

The basic rationale of radiation therapy is that most cancer cells are abnormal cells and are more sensitive to radiation than the surrounding normal tissue. Tumor cells themselves are not affected differently by cobalt therapy but the fortunate combination of physical factors allows larger doses to be given.

The problems of radiotherapy are very similar to the problems of surgery. The surgical attack is limited by the surround-

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Doctor Mankin is a member of the American College of Radiology and the Radiologic Society of North America.

ing vital structures which cannot be removed. The radiation attack is limited by irreversible changes in the same structures. Healing must occur from the surrounding normal tissue whether the entire block of cancer tissue is removed or whether it is sterilized by radiotherapy. The relative absence of scattering is an important key to the tolerance of larger doses given by supervoltage because the all important surrounding tissue is spared.

There are now approximately 170 cobalt machines in use in the United States and Canada. Continual appraisal has begun to

show which tumors respond best to cobalt therapy.

First: Tumors of the Head and Neck

(1) Large tumors of the anterior oral cavity are rarely curable but the chance of cure is improved with cobalt therapy and palliation is accomplished with less morbidity. Small lesions in the anterior oral cavity can be easily treated with radium or intracavity X-ray therapy.

(2) Cobalt therapy offers a much better chance of cure of tumors of the posterior oral cavity, and oropharynx. Even cases with invasion of the mandible or with metastatic nodes can at times be controlled.

(3) Epidermoid carcinoma of the paranasal sinuses is rarely curable but combined with surgical treatment cobalt therapy gives a better chance of control.

(4) Carcinoma of the parotid gland is better controlled and has a better chance of cure with cobalt therapy if operation is refused or impossible.

(5) Cervical node metastases and recurrent carcinoma after operation are more frequently curable and often with very little discomfort to the patient.

(6) Surgical operation is unquestionably the treatment of choice in thyroid malignancy but small post-operative recurrence can at times be effectively controlled.

(7) Early intrinsic carcinoma of the larynx can be effectively treated with conventional radiotherapy but cobalt therapy offers the same control with less discomfort and often with practically no skin reaction.

Lesions which can be classified Stage II or later, have total laryngectomy as the only alternative and there is some indication that supervoltage therapy may be the treatment of choice in these later cases. There is much less danger of necrosis cartilage.

Tumors of the Thorax

(8) Inoperable carcinoma of the lung can be given palliation with less discomfort and less side effect. The low cure rate has not changed because this is almost always a wide spread disease when first diagnosed.

(9) There is considerable controversy over the value of supervoltage therapy in carcinoma of the esophagus. Early metastasis is the rule but at least the preliminary statistics on the treatment of smaller lesions has been encouraging.

Tumors of the Pelvis

(10) True Stage I and early Stage II carcinomas of the cervix should be cured with local radium or transvaginal X-ray therapy alone. We combine this treatment with external cobalt therapy to the parametrial areas and are able to deliver adequate dosage with very little discomfort. Frequently there is no visible skin reaction. Late Stage II, III and IV cervical lesions can be treated more easily with cobalt therapy and there are indications that the cure rate will be improved in the later tumors.

(11) Cobalt therapy shows indications of being the treatment of choice in carcinoma of the female urethra. All stages of disease show improved results in cure and palliation.

(12) Post operative cobalt therapy may be effectively used in adenocarcinoma of the body of the uterus and offers the patient very adequate radiation with minimal discomfort and side effect.

(13) The same advantage is seen in post-operative treatment of ovarian carcinoma and is reflected in improved palliation.

(14) Localized carcinoma of the urinary bladder responds best to surgical resection and cobalt offers an easier method of post operative radiation to the early cases. Tumors too extensive for local resection have shown excellent results with cobalt therapy with improved cure rates and much improved palliation.

Miscellaneous Tumors

(15) Seminoma and lymphoma can be effectively treated with conventional therapy, but the deeper structures such as mediastinal and periaortic nodes can be more easily treated with cobalt. The more resistant lymphatic and testicular tumors such as embryoma have more to gain from cobalt because higher tumor doses are necessary.

(16) Bone tumors are largely resistant

to radiotherapy but when radiation is indicated cobalt has the advantage of minimal skin reaction and discomfort.

(17) Bone metastases from radio sensitive tumors respond well to conventional radiation. Occasionally cobalt therapy is useful because of its skin sparing effect.

(18) Inoperable breast carcinoma can usually be given excellent palliation with cobalt therapy with relatively little discomfort and skin reaction. We have used cobalt therapy routinely on our post operative breast cases and are able to deliver adequate tumor doses to the internal mammary, supra clavicular, and axillary nodes with practically no skin reaction and relatively little side effect.

(19) Inoperable adenocarcinoma of the rectum or localized recurrence after operation can at times be given good palliation and effective control with cobalt therapy.

When malignancy is too extensive for radiation to effect the course of the disease, cobalt may still be useful for relief of some local symptoms. This subjective palliation cannot be demonstrated statistically but nevertheless contributes a great deal to the welfare of the incurable patient.

Many of our cases have been far advanced and hopeless. Over all results in these cases are discouraging and yet an occasional patient has surprised us with very gratifying palliation and additional months or even years of reasonable comfort and useful life.

Our experience with cobalt therapy has closely paralleled that of others. Our machine was installed in March of 1956 and the first patient started therapy on March 13, 1956. Obviously it is too early for even a preliminary statistical evaluation, but our initial observations have been so favorable that we continue to be very enthusiastic.

We think this is a real advancement in the management of cancer and that statistical results cannot help but be improved.

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LEPTOSPIRA POMONA

JOHN M. HALE, Ph.D., and CHARLES W. CATHEY, M.D.

Leptospirosis, primarily a disease of lower animals,^{1,2} is being diagnosed with increasing frequency in man.³ Although the etiologic agents of leptospirosis, when viewed under a darkfield microscope, cannot be differentiated from the leptospira causing classical Weil's disease, the symptomatology of the disease differs markedly from the symptomatology of Classical Weil's disease in most patients.^{4,5} Because of this there are probably numerous incidences of the disease that go undiagnosed or carry the diagnosis of "fever of undetermined origin."

Culturally all of the pathogenic species of leptospira are similar, however they vary widely as to primary host, antigenic make up, and the severity of the disease produced in man. In the world wide survey of leptospira species approximately 32 species are known to exist among a wide range of both domestic and wild animals.⁶ In the United States at least four species are known to be indigenous to cattle, dogs, swine and several species of rodent. Several other species are suspected, but have never been isolated.⁷

In man, less than 10 per cent of the patients with leptospirosis, other than classical Weil's disease, are jaundiced. The symptoms vary from a mild malaise to fever, generalized weakness, gastro-intestinal disturbances and an "aseptic meningitis" of varying severity. The majority of the patients give histories of a more or less close association with domestic animals, particularly cattle, dogs, or swine.⁵

From the Departments of Microbiology and Medicine, University of Oklahoma and the Department of Medicine, Wesley Hospital.

Diagnosis depends upon one of three laboratory procedures.^{6,8} Early in the disease leptospira appear in the urine. These can be found by examining the urine under a darkfield microscope. As the disease progresses, however, the numbers of leptospira in the urine decrease and the opportunity of making a direct diagnosis from the urine specimen is lost. Throughout the disease, leptospira appear in the circulating blood. The numbers are not great, hence a darkfield examination of blood is of very little value. However both blood and urine can be cultured for leptospira until late in the course of a patient's disease. This is a relatively valuable diagnostic tool since leptospira cultures can be reported as either positive or negative for leptospira within five to seven days. Late in the disease circulating antibodies appear. The detection of the antibodies demands the services of a well equipped laboratory. However, when sera are submitted both from the acute and convalescent periods of the disease a diagnosis in retrospect can be made. Since these sera must be shipped through the State Public Health Laboratories to the Communicable Disease Center in Chamblee, Georgia, the final diagnosis is delayed. The great majority of diagnoses are arrived at in retrospect, since they result from serologic tests done on acute and convalescent serums col-

lected from patients with undiagnosed disease.

During the past year in an attempt to develop a cultural procedure that could be placed in the hands of the personnel of a modern clinical laboratory, approximately 50 patients entering Oklahoma City hospitals with diagnosed fever were cultured for leptospirosis. Since other laboratory procedures and findings led to an eventual diagnosis of infectious hepatitis in more than half of the patients cultured, the number of 50 has very little statistical significance. In addition to this, the urine of only two individuals was cultured, blood cultures only being done on the remaining patients. From one patient, the clinical record of whom follows, leptospira was isolated from a specimen of mid-stream urine. This was identified as *Leptospira pomona* by the communicable Disease Center, Chamblee, Georgia. This is the first time *L. pomona* has been isolated from a human case of leptospirosis in the United States, although numerous cases of *L. pomona* leptospirosis have been diagnosed serologically.³

Case Report

"A 17-year old oil field worker was admitted to Wesley Hospital on August 5, 1957, with the chief complaints of fever and headache of five days duration.

On July 17, 1957, he waded into a farm pond to chase out a sick cow that had been in the pond approximately eight hours. He first noted anorexia and malaise on July 24, 1957, which persisted until July 31, 1957, when he began to note pain in the low back area and the legs. He also noted fever and severe throbbing, intermittent frontal headaches. On August 1, 1957, he began to have nausea and vomiting, and a mild, non-productive cough. These symptoms persisted and gradually became more severe and the patient was admitted to the hospital for management, after receiving one injection of Penicillin a few hours prior to his admission. He denied hematuria, melena, hematemesis, or blood transfusions.

Physical examination showed an acutely ill male. The temperature was 103°F., the pulse 98, and the blood pressure 110/70. He

was slightly dehydrated, and there was moderate suffusion of the conjunctiva. There was moderate stiffness of the neck and equivocal Kernig and Brudzinski signs. The heart and lungs were clear to auscultation and percussion. The liver and spleen were not palpated. There was bilateral CVA tenderness and diffuse muscle tenderness. A diffuse macular rash was present over the lower extremities.

Examination of the blood showed a white-cell count of 17,750 with 65 filamented neutrophils, 23 non-filamented neutrophils; eight lymphocytes and four monocytes. The hemoglobin was 14.4 grams per 100 c.c., and the hematocrit 49 per cent. Urinalysis revealed specific gravity of 1.020, albumin two plus (50 mgs. per cent), 3-5 white blood cells per high power field, 10-12 red blood cells per high power field, and rare red blood cell casts. The serum bilirubin was one mg. per cent and blood urea nitrogen 19.2 mgs. per cent. The heterophile agglutination was positive 1:28 dilutions and the typhoid O and H were positive 1:40 dilutions. Initial lumbar puncture on August 5, 1957, showed 23 mgs. per cent protein and no cells. Repeat lumbar puncture on August 10, 1957, showed 48 mgs. per cent protein, sugar greater than 50 mgs. per cent, 970 white blood cells with 45 per cent polys and 55 per cent lymphocytes, and 600 red blood cells. The Cephalin flocculation was negative. The ASO titer was 100 Todd units and C-Reactive Protein two plus. The stool was positive for occult blood. The throat culture revealed alpha and beta hemolytic streptococci. Routine blood cultures, urine culture and spinal fluid cultures showed no growth. Special blood cultures and serum were obtained for leptospirosis. A mid-stream urine specimen was obtained under sterile conditions on August 6, 1957, and was positive for *Leptospira pomona*. The chest x-ray was interpreted as normal. Complement fixation tests with lymphocytic choriomeningitis, Eastern Equine Encephalomyelitis, Western Equine Encephalomyelitis, St. Louis Encephalitis and mumps antigens were negative. Complement fixation tests on August 14, 1957 for *Leptospira icterohaemorrhagiae*, *Leptospira canicola*, and *Leptospira pomona* were negative. Repeat complement

fixation tests on August 20, 1957, showed positive results of 1:32 for all three varieties. On September 12, 1957, the complement fixation tests revealed 1:16 for *Leptospira icterohaemorrhagiae*, 1:16 for *Leptospira canicola*, and 1:32 for *Leptospira pomona*.

The temperature remained elevated, ranging from 103 F. to 100 F. through the sixth day of hospitalization, and thereafter it was normal. His therapy was supportive during his hospitalization until the day of discharge, when he was given 1.2 million units of Bicillin because of a throat culture showing beta hemolytic streptococci. The patient was discharged August 15, 1957, asymptomatic."

Although the culturing of blood and urine for leptospirae is not a truly routine procedure at the present time, and is being used for investigative purposes, the senior writer is anxious to culture as many patients with FUO as possible throughout Oklahoma. Any physician in the state desiring to have culture studies done on patients who might be suspected of having leptospirosis can telephone (RE 6-1511 Ext. 326) or write Doctor John M. Hale, Professor of Microbiology, The University of Oklahoma School of Medicine, 800 NE 13th Street, Oklahoma City 4, Oklahoma. Culture material along with full directions for taking the specimen and the inoculation of the media will be forwarded. The inoculated media must be returned to him for incubation and darkfield studies.

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John M. Hale, Ph.D.
801 NE 13, Oklahoma City, Oklahoma.

William R. Richardson, M.D., Joins Department of Surgery



William R. Richardson, M.D., Professor of Pediatric Surgery, Department of Surgery assumed his duties at the Medical Center on April 1, 1958.

Dr. Richardson received his A.B. degree in Chemistry from the University of North Carolina in 1941 and his M.D. from Harvard Medical School in 1944. He remained in Boston for an internship at Massachusetts General Hospital and residencies in Surgery at this hospital and Children's Hospital. He has served as Instructor of Anatomy at the Medical College of Alabama, as a Teaching Fellow at Harvard Medical School, a Teaching Fellow at the State University of New York, Downstate Medical Center, Brooklyn, New York, and prior to arriving in Oklahoma was Associate Professor of Surgery at the latter institution.

Ancillary Services at the Medical Center

In addition to the School of Medicine and the Graduate College, the Medical Center also incorporates six schools in ancillary medical sciences. A brief description of each school is found below.

School of Social Work. The School of Social Work offers a two year graduate course leading to a Master of Social Work degree. The purpose of this school is to train social workers for employment in a social agency on a special service department in a hospital or clinic. The program construction covers four broad areas. 1) Human growth and behavior; 2) Social services; 3) Social work methods and 4) Clinical practice.

School of Medical Technology. In order to gain admittance to the School of Medical Technology a student must have successfully completed a three year pre-clinical course at an approved college. The training at the Medical Center consists of a twelve-month training period during which the student intern works in the clinical laboratories under the direction of a clinical instructor who is a medical technologist. Upon completion of the twelve months of internship, the student must successfully complete an examination by the Registry of Medical Technologists. After successful completion of the examination, the student then becomes a registered medical technologist.

School of Physical Therapy. This program offers a four-year course of study leading to the B.S. degree in Physical Therapy. The first two years of study may be completed at another institution, but the Junior and Senior years must be completed at the University of Oklahoma. The first three years are concerned with study in the biological, physical and social sciences, which

provide a background for the fourth or professional year, which is concerned with training pertinent to Physical Therapy.

School of X-Ray Technology. The course in X-Ray Technology encompasses two years of approximately 4,000 hours devoted to practical application, lectures and demonstrations. These courses are designed to acquaint the student with physics, electricity, and methods of exposure involved in obtaining x-ray film of diagnostic quality. Additional instruction includes techniques of x-ray therapy and patient hazard. Following a formal training period it is necessary for the individual to pass an examination given by the American Registry of X-Ray Technicians.

Dietetic Internship. The Dietetic Internship encompasses a period of twelve months. Entrance requirements for a Dietetic Internship consist of a Bachelors or an advanced degree from an accredited college. Formal class instruction is given in both therapeutics and in administrative aspects of dietetics. Also, emphasis is placed on purchasing methods, ordering foods, food costs, care and storage of food, and preparation and service to patients and personnel. Five hours of graduate credit are given by the University of Oklahoma for the diet therapy and medical lectures.

School of Nursing. The School of Nursing offers two programs. The first of which is a three year program leading to a certificate as a graduate nurse. A second program consists of training towards a baccalaureate degree in nursing. This is a new program initiated in 1957. The purpose of the program is to allow graduate nurses to obtain a more advanced degree of education in their profession.

ABSTRACTS

Medical and Surgical Complications Associated with Severe Poliomyelitis

HARRIS, D. RILEY, JR.,* and RANDOLPH BATSON.**

J. Chronic Diseases 7: 385, May 1958

Patients with severe paralysis following poliomyelitis are predisposed to life endangering complications both in the acute and chronic stage of the disease. Pulmonary complications, chiefly respiratory infections and atelectasis, are the most common and potentially serious of these complications in patients with respiratory failure. Urinary tract complications, although they may not be an early or sudden threat to life as is the case with respiratory complications, are none the less as important. Pyelonephritis and urolithiasis are the chief problems in this area. The pathogenesis, diagnosis, prevention, and management are discussed. Other complications which are discussed are those of the cardiovascular system, particularly hypertension and cardiopulmonary failure secondary to kyphoscoliosis, nutritional and metabolic disturbances, and gastrointestinal complications notably hemorrhage and perforation. In addition the problems of decreased pulmonary compliance, psychiatric and socioeconomic problems, anesthesia and surgery in patients with respiratory failure and the management of pregnancy complicating poliomyelitis are reviewed. The principles of management of these problems can be transferred to many other handicapping illnesses.

*Professor of Pediatrics, University of Oklahoma School of Medicine (Former address: Department of Pediatrics, Vanderbilt University School of Medicine).

**Associate Professor of Pediatrics, Vanderbilt University School of Medicine, Nashville, Tennessee.

What Physicians Should Know About Respirators

HERBERT KENT.*

Journal of the Southern Medical Association, 50: 1497-1503, December 1957

This is a comparative study of "tank-type" and "portable" respirators commonly employed in the management of respiratory cases. Design features, operation, advantages and disadvantages are given so that the physician will be better prepared to select the appropriate apparatus for his patient requiring such therapy. In addition, important common aspects in the operation of these respirators are discussed.

*Associate Professor, Department of Physical Medicine.

Pressure-Flow Relationships in the Dog Lung During Acute, Subtotal Pulmonary Vascular Occlusion

MICHAEL T. LATEGOLA.*

Amer. Jour. Physiol. Vol. 192: 613, 1958

The relationship of pulmonary artery pressure to pulmonary blood flow was studied in the dog by means of occlusive shifting of blood flow within the pulmonary vascular bed. All experiments were performed using the closed-chest preparation. The range of blood flow increase studied was 25-388 per cent. A graphical plot of the percentage change in blood flow versus the percentage change in mean pulmonary artery pressure is presented. A visually estimated curve of this latter data is presented, discussed and compared to four other curves from previous pulmonary vascular studies. A comparison of these curves suggests that the relative maximum capacity of the pulmonary vascular bed of man and dog are similar. These curves plus certain assumptions allow the speculative delineation of a graphical area representing the "active" vasomotor component of exercise at different levels of pulmonary blood flow increase.

*Assistant Professor of Physiology.

Liver Counting of Cobalt-60 Labeled Vitamin B-12 in the Diagnosis of Pernicious Anemia

P. C. JOHNSON,* R. M. BIRD,** and C. W. SMITH, JR.***

So. Med. J., 51: 417-420, 1958

The article deals with a method which has been developed for the more accurate measurement of the absorption of Vitamin B-12 labeled with radioactive Cobalt-60 by the use of a large size plastic scintillator counter. In this way an accurate approximation of the liver uptake of the absorbed vitamin is available. Liver counting has many advantages over other methods of estimating Vitamin B-12 absorption. The usefulness of this method in establishing a diagnosis of pernicious anemia in a patient who has previously received stable Vitamin B-12 is discussed. The method is also useful in separating pernicious anemia from other macrocytic anemias due to malabsorption from the small intestine.

*Chief, Radioisotope Service, V.A. Hospital, Assistant Professor of Medicine.

**Associate Professor of Medicine.

***NIH Trainee.

The Effect of Estrogen, Androgen, and Thyroid in Degenerative Joint Disease

A. A. HELLBAUM,* W. K. ISHMAEL,** M. L. DUFFY*** and R. W. PAYNE.****

J. Gerontology Vol. 13, No. 2, April 1958

The response of 431 patients with degenerative joint disease to anabolic hormones is presented. Approximately one-third of these were studied by a "double blind" technique and included comparisons of a placebo with preparations containing combinations of estrogen and androgen with and without thyroid. The results of the "double blind" study were similar to those obtained with known preparations. One hundred and eighty-two patients who received an estrogen-androgen combination (68 per cent) were improved. One hundred and seventy-six patients received an estrogen-androgen with thyroid combination and 143 (81.3 per cent) were benefited. Forty-seven patients were treated with placebo alone and 13 (27.6 per cent) evidenced some degree of improvement.

*Professor of Pharmacology.

**Assistant Professor of Medicine.

***Instructor in Medicine.

****Associate Professor of Pharmacology and Instructor in Medicine.

The Identification of L-Kynurenine as the Cause of Fluorescence of the Hair Of the Laboratory Rat

GERBERT REBELL,* JOHN H. LAMB,** ALBOGHASSEM MAHVI,*** and H. RONALD LEE.****

J. Investigative Dermatology, 29: 471-477, 1957

Following the observation that the hair of the laboratory rat fluoresces brightly under ultraviolet light the paper reports the identification of L-kynurenine as the substance responsible for this fluorescence. The identification is made on the basis of the chromatographic properties, ultraviolet absorption spectrum, and bacterial degradation of the purified extract of rat hair.

The unique presence of large amounts of this important intermediate in the degradative metabolism of tryptophane was not previously suspected.

*Research Associate, Department of Dermatology and Syphilology.

**Professor and Chairman, Department of Dermatology and Syphilology.

***Research Assistant, Department of Dermatology and Syphilology.

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RESEARCH FOUNDATION

Section Editor—LEONARD P. ELIEL, M.D. (Director of Research)

Serum Lipids and Lipoproteins

The principal suspect in a search for causative factors in coronary atherosclerosis has been the dietary fat. Considerable attention has been directed towards the amount of fat in the diet and its nature, that is, whether it is saturated (as in animal fats) or unsaturated (as in many vegetable fats). Generally ignored has been the fact that societies with high standards of living, and high coronary death rates, not only ingest large quantities of fat but also select diets rich in protein. Also ignored has been the mechanism of transport of fat in the blood. Fat molecules are rendered soluble in plasma by a coating of protein, whence the term lipoprotein. That dietary protein may actually play a key role in determining the amount and distribution of blood fats, and their response to steroids, has now been demonstrated by Dr. Robert H. Furman, Head of the Cardiovascular Section, and his collaborators, in a paper presented before the joint session of the American Federation for Clinical Research and the American So-

ciety for Clinical Investigation in Atlantic City, N. J. on May 4, 1958. The abstract of this paper follows:

Isocaloric Substitution of Carbohydrate for Dietary Protein; Effects on Serum Lipids and Lipoproteins and the Response to Androgen Administration.

By Robert H. Furman, R. Palmer Howard and Leonard N. Norcia, Cardiovascular and Endocrinology and Metabolism Sections, Oklahoma Medical Research Foundation and the Departments of Medicine and Biochemistry, University of Oklahoma Medical Center (Aided by grants from the National Heart Institute and the Oklahoma State Heart Association).

Epidemiologic surveys suggest an association between low serum cholesterol levels and a reduced mortality from atherosclerotic heart disease which is popularly attributed to a chronically reduced intake of fat. Because low fat diets are usually low in protein as well, this study was undertaken to determine the effect of protein deprivation

on serum lipids and lipoproteins.

Since androgen administration depresses the ratio and high density/low density lipoproteins, a phenomenon of possible relevance to the proclivity of the male to coronary arteriosclerosis, the effects of methyltestosterone administration in the absence of dietary protein were also studied.

A "complete formula" containing corn oil (40% of calories), skim milk protein (14% of calories) and glucose was employed under metabolic balance study conditions. Serum lipoproteins were separated by differential ultracentrifugation and analyzed for cholesterol and phospholipid.

Summary of results:

Feeding the "complete formula" resulted in reduction in serum cholesterol and phospholipid to values approximately 75 per cent of those observed during the conventional diet. This reduction is attributable to the regulated intake of an unsaturated fat.

The isocaloric substitution of glucose for protein resulted in further reduction in serum lipids to values approximately 50 per cent of those observed during the conventional diet.

The reduction in serum lipids noted when dietary protein was withdrawn is attributable in most subjects to disproportionate reduction in beta lipoprotein lipid content.

In the absence of dietary protein, methyltestosterone administration: (a) leads to further reduction in serum lipids to levels 25-40 per cent of those characterizing the conventional diet period, (b) does not cause the anticipated fall in alpha beta lipoprotein ratios, (c) does not result in creatinuria.

Conclusions: Dietary protein is an important determinant of serum lipid levels. In the absence of dietary protein, methyltestosterone administration does not result in reduction in alpha/beta lipoprotein ratios or in creatinuria.

Vitamin E

The exact function of vitamin E in human nutrition is not known. Its use has been advocated for the treatment of sterility, gray hair, and muscular dystrophies, needless to

say with unconvincing results. Dr. Paul B. McCay, of the Biochemistry Section has demonstrated recently that vitamin E in the diet is required for the synthesis of vitamin C (ascorbic acid) by the liver of the rat. The assignment of this new function to vitamin E was reported to the American Society of Biological Chemists of the Federation of American Societies for Experimental Biology in Philadelphia on April 15, 1958. The abstract of this paper which appears in the current Federation Proceedings (vol. 17, page 271, 1958) is as follows:

Mn++ Requirements for Synthesis in Vitro of Ascorbic Acid by Liver Extracts From Vitamin E-Deficient Rats—Paul B. McCay, Mary P. Carpenter and Ranwel Caputto.

Rats were fed from four to 16 days a diet composed of casein, corn starch, lard, the salt mixture of Hubbell and Mendel 351 and required vitamins excepting vitamin E. Controls received the same diet and with a-tocopheryl acetate added. Liver extracts were prepared from these animals and incubated with a system including ATP, DPN, nicotinamide and glucuronic acid by phosphate buffer, pH 7.6. Ascorbic acid production was measured by dinitrophenylhydrazine method or occasionally by dichlorophenolindophenol method. Extracts from the vitamin-deficient rats produced only 10-30 per cent of the ascorbic acid formed by extracts from vitamin E-supplemented rats. Substitution of ATP by TPN or a mixture of ATP and TPN did not alter the difference between the two groups. Addition of 4×10^{-3} M MgSO_4 had no effect on ascorbic acid production by extracts of vitamin E-sufficient rats but produced slight inhibition of synthesis with extracts from E-deficient animals. Addition of 2×10^{-3} M MnSO_4 produced inhibition or no changes with extracts from the control group, but activated ascorbic acid synthesis by extracts from E-deficient animals to the level of the control group. Liver extracts from rabbits with vitamin E deficiency also showed considerable decrease in the synthesis in vitro of ascorbic acid with respect to extracts from E-sufficient rabbits when incubated in the system in the presence of 4×10^{-3} M MgSO_4 .

Special Articles

International Communism: THE COMMUNIST MIND*

STAFF CONSULTATION

The following consultation by the staff of the Committee on Un-American Activities was held at 2:55 p.m., Wednesday, May 29, 1957, in room 226, Old House Office Building, Washington, D. C.

Staff members present: Richard Arens, director; William F. Heimlich, consultant; and Richard S. Weil, staff member.

Mr. Arens. Doctor Schwarz, will you raise your right hand and be sworn by Mrs. Eduora Bernard, the notary public.

Mrs. Bernard. Do you solemnly swear that the testimony you are about to give in this hearing will be truth, the whole truth, and nothing but the truth, so help you God?

Dr. Schwarz. I do.

Testimony of Doctor Frederick Charles Schwarz, Executive Director, Christian Anti-Communist Crusade

Mr. Arens. Kindly identify yourself by name, residence, and occupation.

Dr. Schwarz. My name is Frederick Charles Schwarz, S-c-h-w-a-r-z. My official home address is 142 Concord Road, Concord, Sydney, New South Wales, Australia. My American address is Christian Anti-Communist Crusade, Box 890, Long Beach, Calif., and I am the executive director of the Christian Anti-Communist Crusade.

Mr. Arens. Dr. Schwarz, on behalf of the staff of the Committee on Un-American Activities, I am happy to welcome you here for this staff consultation, which is pursuant to the overall policy of this committee in which we try to contact and make a record of statements of people who have had extensive experience and can shed some light on many of the facets of the world Communist conspiracy.

Would you kindly, for our record, give us a word about your own personal history and background?

Dr. Schwarz. I was born in Brisbane, Australia, on the 15th of January 1913. I was educated at the schools of Brisbane and I attended the University of Queensland, which is the northeastern state, of which Brisbane is the capital. At the university I studied, first, science. I graduated in science with major subjects mathematics and physics. I later graduated in arts in which I studied philosophy and political economy. After teaching school and being a lecturer in mathematics and science in the Queensland Teachers College, I graduated in medicine and surgery from the University of Queensland Medical School. Following graduation, I established a general medical practice in Sydney and, for a time, was psychiatrist for the Cathedral Marriage Guidance Clinic of Sydney and the New South Wales Community Hospital.

I am an evangelical Christian of Baptist denomination and have been a lay preacher for many years.

Mr. Arens. Doctor, would you kindly tell us how you became interested in your work in the anti-Communist movement?

Dr. Schwarz. At the University of Queensland, in the late 1930's I was active in the Inter Varsity Christian Fellowship while the Communists were also active at the university in the Labor Club. We entered into a dispute on the philosophical conflict between God and materialism. I had my first debate with a Communist in 1940 when I debated with Max Julius, a very prominent Communist, now a member of the Central Committee of the Australian Communist Party.

Following this debate my interest quickened, and I read profoundly of the Communist text of Marx, Lenin, and Stalin and

*This special article represents the official proceedings of the U. S. House of Representatives, Committee on Un-American Activities.

challenged other Communists to debate. Over a period of years I was active in lecturing against communism and debating with Communists within Australia, with special emphasis on the philosophic conflict of God and the value of the individual, as against materialism and the individual's insignificance in relation to the state.

Most of my activities were confined to church and religious circles and conducted in association with my medical practice.

In 1950 I made my first trip abroad, visited in America, and returned to Australia. The response to the message was such, and the need such, that my medical practice is now closed; and I am on my sixth world tour and I am now executive director of the Christian Anti-Communist Crusade, which is active in America and Australia and indirectly in many other parts of the world.

Mr. Arens. Thank you for that background information, Doctor.

May I pose this general question to you as a point of departure in your consultation with us today: How would you characterize or describe the ideology and morality of communism, and how, in your judgment, can that ideology and morality be countered or met in this world struggle?

Dr. Schwarz. The ideology of communism is applied Godless materialism. The problem that perplexes many people is the overwhelming appeal that communism apparently exercises for the student mind.

Mr. Arens. What is the nature of that appeal, Doctor?

Dr. Schwarz. The nature of that appeal is a promise that the student can achieve two things by association with the Communist Party. He can participate in the conquest of the world, and following the conquest of the world, he can then participate in a program to change human nature, perfect human character, and populate the entire earth with a new quality of personality infinitely superior to any that history has ever known. The appeal that attracts the young student is almost a religious appeal that his life can be utilized for the regeneration of all mankind.

Mr. Arens. Would you care to elaborate on that theme, Doctor?

Dr. Schwarz. When you ask the Communist a simple question: "How are you going to change human nature?" they would answer with one word, and that word is "science." "We are scientists. Science has changed the material world. Science has changed the world of agriculture. Science has changed the world of animal husbandry. We can use science to change human nature itself."

This sounds very appealing. You can understand how this sounds to a young student infatuated with the techniques of science. To participate in using science for its greatest achievement is a seductive vision.

However, to be scientific you must follow scientific laws, and communism then proceeds to give it three scientific laws. These laws are as follows:

The first one is "There is no God." They are proudly, unashamedly atheistic in theory and in practice. When they deny God, they simultaneously deny every virtue and every value that originates with God. They deny moral law. They deny absolute standards of truth and righteousness. An entire civilized code of moral and ethical values is destroyed so that they are free to erect in their place new moral and ethical standards as the occasion demands.

The second law of communism is that man is a material machine. He is matter in motion and nothing more. Man is a body, and he is completely describable in terms of the laws of chemistry and physics. Man has no soul, no spirit, no significant individual value, no continuity of life. He is entirely an evolutionary product, the specie *Homo sapiens*, and subject to modification, adaptation, and transformation by the applied, established laws of animal husbandry.

William Z. Foster, chairman of the American Communist Party, expresses it in his book, *The Twilight of World Capitalism*, which he wrote in 1949. In the last chapter, *The Advent of the Socialist Man*, he writes:

Henceforth, the evolution of human species must be done artificially by the conscious action of man himself.

Their second law, therefore, is the material animal nature of man.

The third law of communism is economic determinism. It states that the qualities of human intelligence, personality, emotional and religious life merely reflect the economic environment; that in the last analysis what we think, what we feel, what we believe, whom we love, and whom we worship is simply an expression of the environment in which we are raised; and since that environment is primarily concerned with economic forces, in the final analysis, man is a determined economic being.

Mr. Arens. I can hardly restrain myself at this point from posing this question, even at the risk of breaking the theme: If the Communists' major premise is correct, that you and I are not morally responsible, then why would the Communists in the same breath turn around and try to assess moral responsibility against what they describe as the capitalists?

Dr. Schwarz. In the final analysis they do not do that. They consider themselves as superior to the capitalist as the farmer is superior to his animal. Moral responsibility is not involved. They understand capitalist motivation as the automatic outcome of capitalist economics. Since the root is evil the fruit must be so. It is their duty to destroy the root and frequently the fruit. The concept of his moral guilt does not enter into it any more than when a farmer destroys an animal giving a positive tuberculin reaction. You do not consider that animal morally responsible. He belongs to a certain class, which, by reason of its association, has developed a certain potentially dangerous character, and no matter how splendid the animal, its destruction is obligatory.

Communism rests on a class concept. They believe that proletariat class is the progressive class of history and that the capitalist classes, the degenerate classes, are discarded by history and must be destroyed. To them this is the law of historical development. To argue on a bourgeois moral basis merely reflects degenerate class origin.

Economic determinism is the third law of communism.

Applying these laws, communism asserts that the environment of capitalism is a degenerative environment and it creates degenerate people. The responsibility for individual evil, for vice and crime, for selfishness and greed in all its manifestations is not that of the individual. It is the projection of the capitalist environment into the individual.

The Communist believes that if you are going to change the individual, if you are going to change mankind, it is foolish to think that you can do it while the degenerative capitalist environment exists. First, you must conquer the world and, having conquered the world, you must destroy the capitalist environment which is built on profit, selfishness, and greed. You must replace it by socialism which is built on service, cooperation, and unselfishness, so that from birth the experiences of the environment will build into the character unselfishness, cooperation, and service, and as these children mature to adolescents and adults everyone will work because they love to work; everyone will give because it is better to give than receive; the hand of no man will be raised in anger against his brother; there will no longer be any need for government and government will wither and die. There will be no need for a police force; there will be nothing for police to do. There will be no need for an income-tax department because everyone working, according to his natural impulses, gives of his best for the general well-being, and out of the abundance thus created retains only his own personal needs. Farewell anger, lust, and greed, envy, malice and strife, pestilence and war; enter golden, companionable, cooperative brotherhood; mankind will live together in the glorious day of communism that has dawned on the earth.

Mr. Arens. Doctor, may I pose this question: How, to the Communist mind, is this world of goodness and of plenty and of unselfishness and love, consistent with the program which we see in effect in Communist regimes, a program of bloodshed, of deceit, of inhumanity, and the like?

Dr. Schwarz. It is the justification for it all. You see the goals. To sacrifice one or

two generations is not a very big price to pay for such a glorious goal from their point of view.

The Communists are confronted with this problem: When they conquer the world, they are left with those people who have been brought up in the capitalist environment. They have had their experiences. It has formed their character and personality. Naturally, if you leave the babies and the children with them, they will impress that character and personality upon them, so the Communists are confronted with a problem of what to do with the adults of established character and personality once they have conquered the world.

Being thoroughly materialist scientists, they do not hesitate. They say they have no alternative. Naturally, they must dispose of these classes. To them it is not murder. Murder is a bourgeois term which means killing individuals for bad reasons. They are going to kill classes for good reasons.

Mr. Arens. Is it your theme, Doctor, that the practice of communism in the world is consistent with the theory of communism?

Dr. Schwarz. Exactly. Inherent within the theory of communism is the greatest program of murder, slaughter, and insanity conceivable.

Mr. Arens. It is your theory that to the Communist mind the practice of communism and the theory of communism are coextensive, that they complement one another?

Dr. Schwarz. Exactly.

Mr. Arens. What is your appraisal of the murder, deceit, and treachery which even the Communist regimes assess against Stalin?

Dr. Schwarz. To the Communists murder, treachery, and torture are frequently moral acts. They cannot regenerate human nature until they have destroyed the capitalist system. They cannot destroy the capitalist system until they have conquered the world.

Mr. Arens. What would be the mental process by which Khrushchev could condemn Stalin for murder?

Dr. Schwarz. He did not condemn him. He justified him. In his speech on Stalin, that is the most amazing feature. We say Khrushchev condemned him because we read his report on Stalin's incredible acts and mental attitudes. We pay no attention to Khrushchev's climax. He portrayed Stalin's acts which were the most fiendish, the most brutal, the most evil in the record of man. He shows Stalin as a multiple murderer. He shows him the murderer of millions. He shows him as sadistic and insane. He shows him personally dictating the torture of his own friends. He showed, for example, when the Jewish doctors were arrested and accused of poisoning Zhdanov, Stalin called in their interrogator and said, "If you don't get a confession, we will shorten you by a head." After he portrayed the whole macabre spectacle, he finished up with this statement, in effect: "Mind you, don't misunderstand. Stalin was a good man. He did these things as a Marxist-Leninist. He did these in the interest of the working class. He was no giddy despot."

He finished up with a moral justification of Stalin. That leads us to Communist morality. Morality is relative and related to the objective situation.

You cannot regenerate mankind until you have destroyed the capitalist world, and you cannot destroy capitalism until you have conquered the world. The process of world conquest involves waging successfully the class war. Within the present phase of the world struggle, at the heart of existence, there is this universal war. As Lenin stated, "Proletarian morality is determined by the exigencies of the class struggle."

Mr. Arens. Could I interpose this question to perhaps clarify our record: Khrushchev, as we all know, had charge of the liquidation of the Kulak class. About 10 million of his countrymen were liquidated, what we would call murder. A crime of such enormous scope that the average human mind could not begin to comprehend it. In your appraisal of the Communist philosophy and motivation in life, could Khrushchev, as a dedicated Communist, have a twinge of conscience about those murders?

Dr. Schwarz. None whatsoever.

Mr. Arens. Why, Doctor?

Dr. Schwarz. Because these murders were in the interest of the advance of Communist power and world conquest and in the direction of history's will; therefore, they were moral and righteous acts. Any twinge of conscience would be a remnant of Khrushchev's bourgeois upbringing and a failure of his Communist personality.

Mr. Arens. Could you give us a further word, Doctor, on this ideology of the Communists on the inevitability of communizing the world?

Dr. Schwarz. Yes, sir. Their basic theoretical concept derives not from Stalin, not from Lenin, but from Marx. The concept is the universality of class war. This is their theoretical concept. War is a state of being. War exists between the proletarian class, which is the future class of mankind, and the reactionary bourgeois class. The waging of this war is the great duty of all class-conscious proletarians; the future is the triumph of the proletarian class. The Communist Party is the brain of the proletarian class, and the war that manifests itself within a state is a conflict between the Communist Party and the state government until the Communist Party destroys and conquers that state. Once that is done, it manifests itself in the international realm in a state of war between those countries that have been conquered by the Communists and where their power is established and those countries as yet unconquered. The basis of Communist policy is the existence of the class war. To them it is a fact of being.

So within this framework every act which advances their triumph is righteous. Every statement that helps their cause is true.

Mr. Arens. They overlooked the Christian philosophy.

Dr. Schwarz. They wiped it out entirely.

Mr. Arens. The philosophy that the end never justifies the means.

Dr. Schwarz. The end creates the means. Any act, however brutal, and no matter how many people are killed, that advances the Communist conquest, is a peaceful act.

Within this framework of ideology and morality, no Communist can tell a lie in the interests of communism because by definition, if it is in the interest of communism, it is the truth. A person is only a material machine and truth is merely a set of electronic impulses that circulate within his brain. The ultimate truth is the will of the Communist Party. Every basic term that we use has been redefined by the Communists in terms of the class war. For example, as you well know, the word "peace" is one of the great words in the Communist vocabulary and most folks think they are hypocrites when they use the word "peace."

Mr. Arens. Certain people in high places in government have professed that the Communist regime in Soviet Russia wants peace.

Dr. Schwarz. They do want it.

Mr. Arens. What kind of peace do they want?

Dr. Schwarz. You have to understand that their basic concept is that class war is a fact of being and that peace is the historical synthesis when communism defeats the remainder of the world and establishes world Communist dictatorship, which is peace. If you ask a true Communist to take a lie detector test and ask him if he wants peace, he would pass it with ease. He would look at you with a light in his eye and say he longs for peace.

Mr. Weil. Communist peace, not peace as we understand it.

Dr. Schwarz. Every act that contributes to the Communist conquest is a peaceful act. If they take a gun, they take a peaceful gun containing a peaceful bullet, and kill you peacefully and put you in a peaceful grave. When the Chinese Communists murder millions, it is an act of peace. When the Russian tanks rolled into Budapest to butcher and destroy, it was glorious peace. Peace is wonderful and within their framework of ideology whatever helps their conquest is peaceful, good, and true.

Mr. Weil. I would like to ask one question of you as a psychiatrist as well as an analyst of the Communist ideology. There comes a point when all this reevaluation and

redefinition has progressed to a point where it is no longer reconcilable with reality, and even the Communists themselves must recognize this. Have they not reached that point?

Dr. Schwarz. I do not believe they have reached it. They have reached the point of insanity.

Mr. Weil. You think Krushchev still believes in the classic theories as you expounded them?

Dr. Schwarz. I believe that paranoia is at the heart of communism and that their theoretical concepts are far more convincing to them than the evidence of the facts. I believe, for example, that they, in their own mind, believe that the riots in Hungary were organized by the vicious American imperialists. There is this element of paranoic self-deception at the heart of communism. I do not think that they are just hypocrites; they have merged the techniques of hypocrisy with the virtues of sincerity, creating a very powerful instrument.

Mr. Weil. Mass paranoia itself is a term which can be quite deceptive.

Dr. Schwarz. It is a powerful instrument. That insanity is manifest in the world hysteria they stirred up about the Rosenbergs. The Communists manifested their tremendous efficiency as agitators around the world on behalf of the Rosenbergs. The name "Rosenberg" became the best-known American name throughout the world. There were riots in many countries, and actually quite a number of people died in these riots on behalf of the Rosenbergs. Everywhere the Communists and their friends were heart stricken and desperately miserable because of the dreadful anti-Semitic conspiracy that was leading to this cruel persecution of these two poor Rosenbergs.

In the midst of it all, they suddenly arrested a lot of their own leading Jews in Czechoslovakia, men of position, power, and Communist character; and after a farce of a trial, which occupied about 2 weeks, they publicly executed them. The outsider looking on would say, "What sort of people are these? How hypocritical can you be?"

The two Rosenbergs had been given a fair trial. The trial was before a jury of their peers, conducted by an impartial judge. Appeals were heard and every civil liberty granted that the fairest judicial system in the world can provide. In Czechoslovakia, these Jews were practically murdered after the most summary of judicial farces. What hypocrisy! You would expect the Communists to have at least some sense of guilt and inconsistency, but there was no manifestation of it whatsoever. If anything, their tears on behalf of the Rosenbergs flowed more freely. Their agony became more intense. To us they were utter hypocrites, but not to themselves. The execution of the Rosenbergs was an act that would retard Communist world conquest. Therefore, it was an evil act. Therefore, the Rosenbergs were guiltless. Therefore, the evidence against them was perjury. Therefore, those who gave the evidence were perjurers and criminals. Therefore, every progressive and moral proletarian heart must be emotionally disturbed because of this dreadful and evil act perpetrated with cruelty, brutality, and injustice. On the other hand, the arrest and execution of the Czechoslovak Jews would advance Communist world conquest; it would please the Arabs; it would set the stage for Communist influence in the Near East, which we see coming to fruition today.

It was an act in the interest of world conquest by communism; therefore, it was a good act. Therefore they were guilty. Therefore, they were criminals. Therefore, the evidence against them was true. Therefore, every progressive heart must feel a sense of elation and rejoicing that justice triumphed with their death.

Mr. Weil. I think the theory behind that is excellent. But the evidence we have today seems to point to the fact that the Communists wanted the Rosenbergs executed, as a matter of fact, because they felt the Rosenbergs alive might be witnesses against the Communist apparatus. That bears out the impression of hypocrisy.

Dr. Schwarz. There is nothing inconsistent in their moral framework of believing all that and wanting them executed at the

same time. There is nothing inconsistent in that because each individual is merely an expendable animal; and if their dying is going to help the Communist cause, then it is a good act. They could want them executed and yet feel compassion for them and anger against their brutal executioners. We have established that inherent within Communist ideology and morality there is a program of murder, treachery, and brutality and that the theory of communism translates these acts into highly moral acts. The theory of communism destroys every basic moral value on which civilization, and particularly Christian civilization, is built.

Mr. Arens. Doctor, is there some kind of analogy that could be made between what you are saying and what your experience must have been as a surgeon, namely, that a surgeon, as he undertakes to eliminate a cancerous cell or organism of the body, cuts into noncancerous material and does it feeling he is doing so on perfectly moral grounds because he is trying to save life? Is that the approach that you are saying that Communists have toward the ultimate goal of redemption of the world by communism, that they can take lives, innocent lives, because the overall objective is one of saving humanity?

Dr. Schwarz. The tragedy of communism is not simply that it murders, but it transforms murder into a moral and righteous act. When a person does evil and he is conscious he is doing evil, you have a basis of approach; but when evil becomes good, you have no starting point, you have nothing about which to argue. The great evil rests in the philosophic, basic concepts of communism when it rejects God, when it materializes and bestializes man, and when it denies the inherent dignity and value of human personality and individuality. Upon that ruthless, amoral, materialistic basis it builds an edifice which destroys evermore every civilized, moral, ethical, and spiritual value.

Mr. Arens. Before we get to the second side of your coin, you have told us, first of all, on the basis of your background experience and study, the ideology and morality of communism, and you propose to tell us, as

I understand it, how to meet and defeat this ideology of communism.

Before we get to the second side of the coin, could I ask you a question or two, if you please, Doctor?

How do you account for the fact that this ideology of communism, which is contrary to all that you and I as Christians—and I say it in the broadest term—people who believe in God and believe in spiritual values, how do you account for the fact that this force called communism, evil as it is, unappealing as it is to those with any sense in them of goodness, is sweeping across the world with a speed that is hitherto unknown in the history of the world, that it now encompasses about one-third of the population of the world from a start of about 50 years ago? How do you account for that?

Dr. Schwarz. First, the reason is their recruitment of the student intellectual, who is susceptible to the appeals of communism by reason of his educational conditioning. He accepts that materialist foundation on which Communist ideology and morality is built. He is recruited in terms of his ideological pride. He is more intelligent than the average man, and he sees the opportunity to mold man and create history, whereas the dull, brutal driven herd sweeps on unaware of the forces that create it and drive it forward. He is one of the elite, the chosen, and the intellectual aristocracy. In combination with this intellectual pride, the religious nature of man demands a purpose in life; they find in this vision of human regeneration a religious refuge for their Godless hearts.

Second, there is their superb organization. The origin of effective communism came with totalitarian organization, the formation of the Bolshevik segment of the Russian Democratic Labor Party under Lenin. Communism illustrates the truth that the disciplined, dedicated, scientific, intelligent, and organized few will be able to exploit and direct, deceive, and conquer the selfish, undisciplined, disorganized multitudes. Communism is advancing in terms of its recruitment of students, the organization of these students into the Communist

Party and the scientific exploitation of group needs, grievances and ambitions to advance their party to power. The goal of communism is conquest, not conversion. They convert a few and conquer the many.

Mr. Arens. It is our information, Doctor, that there are in the world today approximately 25 million Communists. Is there any cohesive force that is opposing them?

Dr. Schwarz. Unfortunately, no.

Mr. Arens. Is there any monolithic force of any comparable size?

Dr. Schwarz. Unfortunately, I know of none. I know of no monolithic, conscious, dedicated, directive force to oppose them. What is needed, and that brings us to a second point—

Mr. Arens. I would like to ask you, before you get to your second point, if there is a fallacy in undertaking to appraise the strength of the world Communist movement in terms of numbers?

Dr. Schwarz. A very definite fallacy involved.

Mr. Arens. Why?

Dr. Schwarz. Because it is trying to determine the validity of the hull of the boat by relating the area of the holes to the area which is sound. One hole can sink the ship. Communism is the theory of the disciplined few controlling and directing the rest. One person in a sensitive position can control, manipulate, and if necessary, destroy, thousands of others.

Mr. Arens. To use this illustration of your boat, you need only one man to pilot the wheel.

Dr. Schwarz. That is right. If he wants to run it aground, the fact that the other thousand people want to keep it at sea has little bearing on the result. Lenin's slogan was fewer but better; the dedicated, disciplined, who will conquer and control the great multitude.

Mr. Arens. Doctor, on the basis of your extensive study of communism, is it conceivable that we can negotiate ourselves out of the struggle, negotiate with the Soviets, the international Soviet operation?

Dr. Schwarz. To negotiate true peace with people who are utterly dedicated to the concept of the historical inevitability of class war and their victory is impossible. To think that we can do it is to indicate a failure to understand communism so completely that it approaches mental illness. To the Communist every negotiation is an act of war. Every delegation is an act of war. Every peace petition is an act of war. Every disarmament conference is an act of war.

Mr. Arens. Could we trust them in negotiating with them in a disarmament conference?

Dr. Schwarz. As long as keeping their promise would advance their program of conquest, they could be trusted to keep it. The moment that keeping their promise hindered their program of world conquest, it would be their moral and righteous duty to break it. Actually, crazy as it sounds, to them, breaking their promise would be keeping it.

Mr. Arens. Doctor, with this record reflecting your comments on the ideology and morality of communism, we would be very happy to have you proceed to give us your views on how the free world can meet and defeat the ideology of communism.

Dr. Schwarz. The first step to Communist conquest is the ideological conquest of the student mind. That is always the first step. Our first step should be the immunization of the student mind against that conquest by the Communists.

The Communists have never been able to make progress until they have been able to get these student intellectuals to be their standard bearers. This poses a problem both within and without the country. Within the country the educational system, the legislative system, the family, the religion, and all cultural influences should be so tuned that they build a mind and a character with an understanding of the American heritage and moral values; a confidence in your constitutional system, your government by law, your economic systems of free competitive enterprise. Associated with this understanding, there should be a national patriotism that will immunize the youth against the very insidious Communist propaganda.

The first thing is to educate young people who believe in their God, their country, their family, their Constitution, their liberty under law and who are proud of their heritage. They then will not easily be swayed by Godless, materialistic concepts.

Mr. Arens. May I pose a question at this point, Doctor: Have not the Communists even perverted these institutions, such as loyalty to Government, such as the true tenets and principles of the Constitution?

I know when this committee has hearings in which we subpoena before us people who are identified under oath as hard-core members of the Communist conspiracy, they very cleverly attack the committee as though we are the ones out to destroy the Constitution, as though they are the ones who are defending the Constitution by invoking the fifth amendment; and they have a significant segment of the so-called liberals of the country who go right down the line with them.

Dr. Schwarz. Exactly. This is the paradox. Here are our very precious, cherished liberties that did not come about by accident, that are the envy and admiration of the rest of the world; here is a group of people, the Communists, openly dedicated to their total destruction and yet these Communists are able to take advantage of these very liberties and to hide behind these liberties for their purposes of destruction and to recruit as their "runners of interference" well meaning American citizens. This is the paradox that confronts us. The problem is, and I know that this is a problem that confronts your committee all the time, how can we rout them out, expose and disarm them without doing damage to the constitutional system and liberty under law which are so cherished in America? I believe it can be done, it must be done; and it is being done.

Mr. Arens. I would like to have you elaborate, if you please, sir, on the way in which, in your judgment, the ideology and morality of communism can be exposed for what it is, the fallacies of it actually exposed and how to actually meet it with a superior and more sound ideology.

Dr. Schwarz. I believe that the problem is largely an educational one, but it is also a spiritual one.

If I may say so, I think your committee has done a magnificent educational job. I do not know if that is the prime function of your committee, but you have certainly done a splendid educational job in revealing not only the theory but the actual practice and character of communism and Communists.

I believe that communism should be taught in the educational system, but I believe it should be taught with a moral directive, in the same way that a medical student is taught that cancer is evil, that tuberculosis is evil and education about them is directed to their elimination and defeat. I think the teaching of communism without a moral directive can be very dangerous. Teaching it with a moral directive, should emphasize the basic foundations of American civilization, revealing the enemy threatening their destruction, the erroneous beliefs leading the Communists to undertake the destruction of freedom, the methods by which they propose to destroy, and what must be done to defeat them. If it is presented with moral direction, it appears simply as an alternative economic system with certain superior virtues. This has frequently been done in the past and instead of opposing communism, it tends to recruit to communism.

I believe there is a great problem before the American people: to provide education with a moral dynamic that reveals communism as a rationale of murder and lying and the destruction of freedom. It is totally immoral, and mental and emotional barriers against it should be erected in the minds of the young.

Then there is also the problem of what is to be done throughout the world, because communism is advancing by a pincers movement. It is advancing by internal deception, confusion, misrepresentation and weakening and external growth of power. They believe that by a combination of the internal confusion and degeneracy, in combination with the growth of the external threat, the final act of conflict can be consummated without war and their violence can follow later.

Mr. Arens. Do you remember the quotation from Lenin on that, that they will encircle the United States and it will fall in

the hands of the Communist like an over-ripened fruit?

Dr. Schwarz. That is their program. The tragedy of our approach to the Communist danger throughout the world is that it is almost entirely on a materialistic plane that we are trying to defeat them.

Here is the great paradox. The Communists profess themselves to be materialists, and we profess to be idealists and spiritual people. As a consequence of these beliefs, the Communists are winning the world by first winning the students ideologically, while we try to combat them by material means. Basically the program, at least if you look at it budgetwise, is about \$40 billion approximately for military weapons, then about \$3 billion to \$4 billion for material assistance, and a tiny fragment for purposes of information, education, and spiritual warfare.

The paradox is this: Basically, much of our program to combat communism rests on a Marxist foundation. Marxism teaches that the ideas of the mind, as well as the emotions of the heart, emerge out of the material environment.

When we want people of the world to resist the Communist idea and to embrace the idea of freedom, we think that if we give them material benefits this will automatically come to pass, and so the idea is to give economic aid and military assistance in the expectation that communism will lose its appeal and freedom will triumph.

The foundation is wrong. Materialistic measures do not control the minds and the hearts of the people. This must be done in a more direct fashion. We need a scientific approach that will utilize the moral, cultural, and spiritual values in each of these countries. We need a loving, friendly, co-operative spirit and a direct approach to their minds and hearts to mobilize them against communism.

Let us consider India. The Communists want India. If they conquer India the consequences are incalculable. The average Indian must have a reason for being against communism. What reason is significant to him? You cannot say it is against his eco-

nomic well-being. His economic well-being is so low that it is difficult to make it any lower. You cannot say it is against his constitutional liberties. He does not quite understand what they are. It must be against something which to him is meaningful and significant, it must threaten something to him that is valuable. The Communists very cleverly deceive and hide their destructive program from each group as they exploit their needs and conquer them.

There are certain forces which, properly organized, will mobilize the people against communism. To the Indian his religious faith, whether it be Hindu, Moslem, or Christianity, is important. His family relationship is important. His moral code is important. His national aspirations are important. Communism is against all these things; but in its approach to the Indian, it appears to be favorable to them.

I am informed by Indians that the majority of Christians in India vote Communist. The reason they vote Communist is not because they approve of Communist theories, they haven't the faintest idea what they are. They vote Communist because the Communists sent a very fine young student to their village with glorious magazines showing them how much their life will be improved under communism.

Mr. Weil. What do we do; send more magazines?

Dr. Schwarz. Not so fast. First the Communists had to win the student who takes the magazines. We need an ideological offensive. That is what I am trying to do. I am an evangelical Christian and there are evangelical Christians in India. We have a basis of fellowship. Communism threatens us both. By personal association and contact we can build the understanding of the Communist danger. We have the tools that can help them convey the message to other Christians and the Indian people. It is much better that they should do it. We can help them. Our material advantage can now be effectively used when dedicated freedom-loving people, encouraged by our love, equipped by our support, carry the message of the value of the individual and the spiritual heritage of man, interpreted in the light of

their specific faith, motivated by the dynamic of their conviction, when they carry this message and the corollary of the Communist threat to their own nationals.

Mr. Arens. On the basis of your world-wide tours, background and experience, what is your appraisal of the progress of internal communism as opposed to the forces of freedom at the present time?

Dr. Schwarz. I regret to say that, by every standard test, the Communists have been making terrifying progress; and they are winning and we are losing.

Also in regard to your question, I think that the following illustration may be significant: Recently, for the first time, I saw the mechanical brain, the Univac machine. The firm was quite a small firm and yet to them it was so important that they paid \$1,000 a month rental for it. They explained to me its purpose: They fed into it the statistics of the past, and the machine analyzed them and then predicted future trends. These trends were so accurate that they formed the foundation for their policy.

I said to the president of the firm, "Let us feed in the statistics of Communist advances of the past 50 years and see what year the Univac predicts the Communists will conquer the world. Lenin established Bolshevism with 17 supporters in 1903. He conquered Russia with 40,000 supporters in 1917, and today they have conquered more than 900 million." The president of the company said, "I am afraid to try it."

The Communists claim victory is certain for the following reasons: They say it is inevitable, because we are the product of our own environment which has created us so intellectually dishonest, so unwilling to face the evidence, so selfish, so greedy, and so intoxicated with entertainment that we will never have the honesty, the intelligence, the courage, or the dedication necessary to do what must be done if we are to survive.

Mr. Weil. What must be done if we are to survive?

Dr. Schwarz. We must face honestly the gravity of the situation. We must give it priority in our thinking and in our actions.

We must build a strong base of freedom-loving people articulate in their faith, in their love of country, in their love of God, in their love of home, and in their love of law, and we must rally the spiritual forces in the heart of man and recruit dedicated personnel to raise barriers against communism in every area of the world.

The fundamental foundation of opposition to communism is an informed public opinion and a dedicated public character. On these alone the necessary legislative, administrative, judicial, military, and economic and educational programs may be built.

We have to set to work urgently building the foundation for Communist defeat. Most of our present programs, such as the military program and economic program, are temporary measures which may hold back the flood for a short period and give us a little more time to find a permanent solution.

In conclusion may I say that assessing all the evidence on a world-wide scope the Communists' continuing advance is terrifying, and the possibility of the fulfillment of Khrushchev's boast, "We'll bury you," looms closer everyday.

Mr. Weil. If the present rate of Communist advances continues, how long do you think it will be, in your analysis of world events, before the Communists take complete control of the world?

Dr. Schwarz. I think the Communists have more or less tentatively set the deadline for about the year 1973. Mao Tse-tung and Stalin in their last conference thought it would take 4 more 5-year plans, approximately 10 years for the conquest and consolidation of Asia, with the immediate threat to Africa and Europe, while the weakening, softening, and degeneration of America continues, and avoiding an atomic-hydrogen war, their conquest is contemplated about that time.

Mr. Weil. You mean 10 years from now for the consolidation of Asia, and this program does not envision a hydrogen bomb war?

(Continued on Page 502)

New Rating System For Blue Cross-Blue Shield*

N. D. HELLAND, Executive Director
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A new rating system for determining the dues applicable to county, employed, and associated groups covered by Blue Cross-Blue Shield will go into effect on the anniversary dates of the groups immediately following August 1, 1958. This new system will group-rate individual memberships within each county, employed groups within each county and associated groups statewide. Thus the dues for memberships in each group will go up or down each year depending on the previous year's financial experience with that group. This means that in a given county, the Blue Cross and Blue Shield dues may both go up or both go down. Blue Cross may go up and Blue Shield down, or Blue Shield up and Blue Cross down. These are the possibilities.

The \$3.00 a day deductible plan (Series IV) for hospitalization coverage now in effect in some areas and in the physicians associated group will be abolished within a year after August 1, 1958.

The necessity for this new concept of hospital and medical care underwriting is clear in the cold light of the following facts:

1. The amount of hospital care paid for out of dues received from a given county varied last year from a low of 39 per cent in one county to a high of 136 per cent in another county. This 97 per cent difference in usage in 77 counties renders *statewide* rating of all dues vulnerable to logical and serious question (see chart).

2. Hospital admission rates increased 10 per cent last year over 1956, which represents over \$500,000 additional payments to hospitals. There are now 181 members out of each 1,000 members being hospitalized each year compared to 155 as recently as

six years ago. This hardly compares with national figures that indicate 129 people out of each 1,000 population were admitted to all hospitals . . . *regardless* of insurance.

3. The device of a \$3.00 a day deductible for hospital admissions in high-usage areas has lost its effectiveness as a mild deterrent to unnecessary hospitalization. Of all the counties in Oklahoma, 41 of them used more than 90 per cent of their dues dollar for hospital benefits last year . . . and this in spite of the \$3.00 a day deductible! These 41 counties represent 57 per cent of Blue Cross' income last year.

4. There is *no* correlation between the hospital care used in a given county and other possible explanations such as: (a) number of hospital beds available, (b) population, (c) hospital costs, (d) number of physicians, (e) economic status of the county, (f) proximity to state borders or big cities. Therefore *local responsibility* of the three publics involved (members, hospitals, and medical) seems to be the only explanation for the success of the Plan in some counties and its failure in others. This responsibility (or lack of it) must now be recognized on a county level in the dues structure so that carefully-used memberships may be fairly priced and not penalized by other members elsewhere whose purposes are wantonly disregarded.

The importance of these four factors is crystal-clear. Therefore, a new *dues* structure has been devised that will place the control of the prevailing rates in a given county *within* that county. *Benefits have not been altered.*

A new "Base Rate" has been devised which will apply to all Community Groups beginning within the next year. This rate will then apply to each county for 12 months. At the end of that period the financial experience of both Blue Cross and Blue Shield in each *county* will determine whether the

*Special attention should be paid to this article since many members of Blue Cross-Blue Shield may question their physicians concerning these changes.

dues will (a) go up, (b) remain the same, or (c) go down. When the amount of care paid exceeds 90 per cent of the dues received from a county, the following year's dues for all members in that county will be increased. The amount of increase will be in increments of 15 per cent. Thus, counties using 91 per cent to 105 per cent of the dues dollar will pay the Base Rate *plus* 15 per cent the following year. Those using 106 per cent-120 per cent will pay the Base Rate *plus* 30 per cent . . . etc. However, those counties whose usage is from 70 per cent to 90 per cent will remain on the Base Rate. So that this program is completely fair to all counties, a *reduction* (Base Rate *minus* 15 per cent) will be awarded all counties who usage is *less than* 70 per cent. This full-spectrum

rate structure has been approved by the Insurance Commissioner of the State of Oklahoma.

Historically, Blue Cross-Blue Shield has operated in a strange paradox . . . complete responsibility for the care of millions of dollars in member's funds but *no control* over the disbursement of them or the cost of care. In the light of the ascending economy of the past ten years and the many threats to the voluntary and free-choice ideals, Oklahoma Blue Cross-Blue Shield feel that this new concept of County-Rating at last places the responsibility for making the voluntary way work squarely where it belongs . . . in the hands of the public, the hospitals and the physicians.

1957 BLUE CROSS EXPERIENCE Hospital Benefits Used Compared to Dues Paid

	Care Used		Care Used		Care Used
Adair	104.4%	Grant	103.5%	Nowata	122.6%
Alfalfa	93.7	Greer	75.1	Okfuskee	84.2
Atoka	89.2	Harmon	66.2	Oklahoma	70.4
Beaver	85.7	Harper	96.8	Okmulgee	88.5
Beckham	87.6	Haskell	39.0	Osage	99.1
Blaine	102.2	Hughes	98.2	Ottawa	97.3
Bryan	64.9	Jackson	68.2	Pawnee	94.8
Caddo	87.2	Jefferson	136.6	Payne	87.5
Canadian	83.5	Johnston	87.2	Pittsburg	104.1
Carter	91.5	Kay	94.8	Pontotoc	106.0
Cherokee	98.4	Kingfisher	63.8	Pottawatomie	84.7
Choctaw	99.9	Kiowa	91.8	Pushmataha	119.7
Cimarron	116.8	Latimer	107.1	Roger Mills	73.6
Cleveland	80.0	LeFlore	67.8	Rogers	102.8
Coal	127.1	Lincoln	106.2	Seminole	86.8
Comanche	86.7	Logan	66.2	Sequoyah	95.1
Cotton	77.9	Love	58.5	Stephens	95.7
Craig	71.7	McClain	95.6	Texas	108.1
Creek	119.3	McCurtain	124.7	Tillman	111.6
Custer	87.0	McIntosh	100.4	Tulsa	96.4
Delaware	64.4	Major	135.9	Wagoner	77.1
Dewey	56.8	Marshall	63.8	Washington	100.4
Ellis	58.6	Mayes	109.9	Washita	50.5
Garfield	104.1	Murray	98.0	Woods	115.8
Garvin	66.6	Muskogee	74.5	Woodward	92.3
Grady	61.4	Noble	131.8		

PRESIDENT'S LETTER



The constant stream of proposed medical legislation that daily floods our federal government is primarily designed as a program to appeal to the greatest number of constituents. Many of these people are those who are looking for something for nothing, but desire it cloaked by legislation that would make it seem to be to the best interests of the public.

This year, being an election year, the political pressure from the selfish left wing opportunists is much more intense and will build up throughout the rest of this term of legislature. It is in such situations that serious mistakes are often made by our most sincere lawmakers.

Among the more seemingly attractive legislative proposals are those that would increase the benefits under the Social Security Act, which includes the Forand Bill. This bill would completely socialize hospital and medical care for the social security beneficiaries and drastically restrict the recipient's free choice of physicians.

The authors and producers of bills such as these are ignoring and refusing to contemplate the eventuality of a race of people who have lost their individual initiative and self-respect through complacent security provided by taxation.

Let us not relax our efforts to preserve the freedoms this nation was founded upon. These freedoms have made and kept us strong and progressive. Write your congressman today; he will appreciate your interest and respect your sound thinking.

A handwritten signature in dark ink, reading "E. C. Mohler, M.D." with a stylized flourish at the end.

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*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

SEARLE

Medical News

Report on Actions

House of Delegates of the American Medical Association

107th Annual Meeting, June 23-27, 1958 — San Francisco

The United Mine Workers of America Welfare and Retirement Fund, Social Security coverage for self-employed physicians, relations with voluntary organizations, veterans' medical care, the Medicare program, the Association's Washington Office and over-all legislative system, the medical aspects of hypnosis and the advertising of over-the-counter medications were among the variety of subjects acted upon by the House of Delegates at the American Medical Association's 107th Annual Meeting held June 23-27 in San Francisco.

Doctor Louis M. Orr, urologist of Orlando, Fla., was chosen unanimously as president-elect for the coming year. Doctor Orr, who in recent years has been vice speaker of the House of Delegates and chairman of the A.M.A. Committee on Federal Medical Services, will become president of the American Medical Association at the June, 1959, meeting in Atlantic City. He then will succeed Dr. Gunnar Gundersen of La Crosse, Wis., who became the 112th president at the Tuesday night inaugural ceremony in the Rose and Concert Rooms of the Sheraton-Palace Hotel.

The 1958 Distinguished Service Award of the American Medical Association was voted to Doctor Frank Hammond Krusen, professor of physical medicine and rehabilitation at Mayo Foundation, Rochester, Minn., for his outstanding achievements and contributions in the field of physical medicine and rehabilitation. For only the fourth and fifth times in A.M.A. history, the House also approved special citations to laymen for outstanding service in advancing the ideals of medicine and contributing to the public wel-

fare. Recipients of these awards were Mrs. Charles W. Sewell of Otterbein, Ind., who has spent 45 years in rural health work, and Gobind Behari Lal, Ph.D., distinguished science writer and Pulitzer prize winner.

With half a day of the meeting still to go, total registration Thursday night had reached 37,520, including 13,034 physicians.

United Mine Workers

Major discussion of relations between medicine and the UMWA Welfare and Retirement Fund centered on a reference committee report which concurred in a Board of Trustees opinion that final action on two resolutions adopted in December, 1957, should be postponed until the final report of the Commission on Medical Care Plans is received.

One of those resolutions, Number 20, declared that "a broad educational program be instituted at once by the American Medical Association to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the 'Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund' adopted by this House last June." The other resolution, Number 24, called for the appropriate A.M.A. committee or council to engage in conferences with third parties to develop general principles and policies which may be applied to their relationships with members of the medical profession.

In explaining its position that final action on the two resolutions should be taken only after proper study, the reference committee said it "anticipates that the final report of the Commission on Medical Care Plans will contain recommendations serving to clarify the relationships between the medical profession, the patient and third parties, and the committee has been assured that this can be expected." The committee also urged the Commission to present its recommendations no later than December, 1958.

The House of Delegates, however, by a vote of 110 to 72, adopted a floor amendment "that this section of the Reference Committee report be amended to show that our A.M.A. Headquarters Staff is directed, under supervision of the Board of Trustees, to proceed *immediately* with the campaign which was originally ordered at Philadelphia last December, that no further delays will be tolerated, and that the Council on Medical Service be relieved of any further responsibility in this matter."

Social Security Coverage

In considering seven resolutions dealing with the inclusion of self-employed physicians under the Social Security Act, the House disapproved of three which called for polls or a referendum on the A.M.A. membership, one which favored state-by-state participation in Social Security, and two which called for compulsory inclusion on a national basis. Instead, the House adopted a resolution pointing out that "American physicians always have stood on the principle of security through personal initiative," and reaffirming unequivocal opposition to the compulsory inclusion of self-employed physicians in the Social Security system.

On the question of polls, the House expressed the opinion that any poll should be taken on a state-by-state basis and the results transmitted to the A.M.A. delegates from that state. It also pointed out that since there is no provision in the Constitution and By-laws for a referendum of members, such a referendum would usurp the duties and prerogatives of the House of Dele-

gates, which is the Association's policy-making body.

Voluntary Health Organizations

Dealing with problems that have arisen in the distributing of funds since development of the concept of united community effort, the House adopted the following statement offered in the form of amendments from the floor:

"1. That the House of Delegates reiterate its commendation and approval of the principal voluntary health agencies.

"2. That it is the firm belief of the American Medical Association that these agencies should be free to conduct their own programs of research, public and professional education and fund raising in their particular spheres of interest.

"3. That the House of Delegates respectfully requests that the American Medical Research Foundation take no action which would endanger the constructive activities of the national voluntary health agencies.

"4. That the Board of Trustees continue actively its studies of these perplexing problems looking forward to their ultimate solution."

Veterans' Medical Care

Pointing out that the Federal Government spent \$619,614,000 on hospitalized medical care of veterans in VA hospitals in 1957, of which about 75 per cent had non-service-connected disabilities, and that ways and means of obtaining economy in Federal government are allegedly being sought by Congress at this time, the House urged Congressional action to restrict hospitalization of veterans at VA hospitals to those with service-connected disabilities. It also recommended that the American Medical Association suggest to the Dean's Committees that they restrict their activities to Veterans Administration hospitals admitting only patients with service-connected disabilities.

The Medicare Program

In disapproving a resolution calling for repeal, modification or amendment of Public Law 569, the House took the position that desired changes in the Medicare program

could be accomplished through modification of the present implementing directives without the necessity for new legislation. The House reaffirmed the action taken last year in New York recommending that the decision on type of contract and whether or not a fee schedule is included in future contract negotiations should be left to individual state determination. Also reaffirmed was the Association's basic contention that the Dependent Medical Care Act as enacted by Congress does not require fixed fee schedules; the establishment of such schedules would be more expensive than permitting physicians to charge their normal fees, and fixed fee schedules would ultimately disrupt the economics of medical practice.

Washington Office

The House adopted a resolution requesting the Board of Trustees to make an immediate survey and re-evaluation of "the functions and effectiveness of the over-all A.M.A. legislative system, including the Washington office, in the light of present-day needs of the government, public and medical profession alike for effective liaison between government and medicine on all matters affecting the public's health and adequate, prompt and accurate transmittal to the full membership of the A.M.A. of information on all current public issues in which the physician has a direct interest." The House asked that the Board of Trustees implement, as rapidly as possible, all changes and additions that its survey discloses are desirable to achieve the basic purpose of the resolution, "effective public and government relations."

Medical Aspects of Hypnosis

A Council on Mental Health report on "Medical Use of Hypnosis" was approved by the House, which recommended that it be published in the Journal of the American Medical Association with bibliography attached. The report stated that general practitioners, medical specialists and dentists might find hypnosis valuable as a therapeutic adjunct within the specific field of their professional competence. It stressed, however, that all those who use hypnosis need to be aware of the complex nature of the phenomena involved. Teaching related to hypnosis should be under responsible med-

ical or dental direction, the report emphasized, and should include the indications and limitations for its use. The report urged physicians and dentists to participate in high level research on hypnosis, and it vigorously condemned the use of hypnosis for entertainment purposes.

Over-the-Counter Medications

The House endorsed recommendations by the Public Relations Department that:

The A.M.A. join with other interested groups in setting up an expanded voluntary program, coordinated by the National Better Business Bureau, which will seek to eliminate objectionable advertising of over-the-counter medicines.

The A.M.A. counsel with the National Better Business Bureau in the selection of a physicians' advisory committee.

The established facilities of the A.M.A., such as the Chemical Laboratory, the offices of the various scientific councils, and the Bureau of Investigation, be made available, so far as is feasible, to aid in the carrying out of this program.

The Public Relations Department continue its liaison work with the various groups involved and assist in the development and operation of this program in any way possible.

The A.M.A. become a sustaining member of the National Better Business Bureau, giving evidence of its willingness and desire to support this organization in its worthwhile activities.

Miscellaneous Actions

Among a wide variety of actions on many subjects, the House also:

Adopted amendments to the *Constitution and By-laws* which eliminate the separate offices of Secretary and Treasurer, combining them into one, and which change the titles of the General Manager and Assistant General Manager to Executive Vice President and Assistant Executive Vice President;

Recommended the appointment of a Committee on *Atomic Medicine* and Ionizing Ra-

diation and suggested that it concern itself with informing the American public on all phases of radiation hazards related to the national health;

Approved in principle the admission of the *Virgin Islands Medical Society* as a constituent society of the American Medical Association;

Commended the *Federal Food and Drug Administration* for its untiring efforts in behalf of the public and the profession, and urged all states to review and strengthen their food and drug laws;

Approved the "Suggested Guides for the Organization and Operation of Medical Society *Committees on Aging*," submitted by the Council on Medical Service;

Commended the Committee on Medical and Related Facilities of the Council on Medical Service for its report on the *Hill-Burton Study* and approved its recommendations;

Requested that any funds provided under the Public Assistance provisions of the Social Security Act for *medical care of the indigent* be administered by a voluntary agency such as Blue Shield on a cost plus basis or by a specific agency established by the medical society of the state in which indigent care is rendered;

Directed the Board of Trustees to study problems pertaining to licensure by *reciprocity* and to consult with the Federation of State Medical Boards in an attempt to find a satisfactory solution;

Urged all members of the House of Delegates to give full consideration to the preliminary report of the Committee on Preparation for *General Practice* and to submit comments and suggestions to that committee;

Expressed the opinion that some operating room experience is valuable and necessary training for all *nurses*;

Recommended that general hospitals, wherever feasible, be encouraged to permit the hospitalization of suitable *psychiatric patients*, and

Approved a *National Interprofessional*

Code for physicians and attorneys prepared by the joint liaison committee of the American Medical Association and the American Bar Association.

Opening Session

At the Monday opening session Doctor David B. Allman, retiring A.M.A. president, urged every physician to rededicate himself to the service of mankind and every medical society to strengthen its disciplinary system "to prevent the very few from besmirching the vast majority of us." Doctor Gundersen, then president-elect, said the Association is moving ahead in finding the best possible ways to serve both the public and the medical profession, and he declared there is no reason to believe that its influence and impact will not continue to grow in the times ahead. The Goldberger Award in clinical nutrition was presented to Doctor Virgil P. Sydenstricker, professor emeritus of medicine at the Medical College of Georgia.

Inaugural Ceremony

Doctor Gundersen, in his Tuesday night inaugural address, called upon the medical profession to accept its full responsibilities in promoting better world health, brotherhood and peace, adding that "the time has come when medical statesmanship must be used to augment the methods of political diplomacy." Doctor Gundersen also presented the Distinguished Service Award to Doctor Krusen and the special layman citations to Mrs. Sewell and Doctor Lal. The Shrine Chanters of Oakland, Calif., provided choral numbers during the program.

Election of Officers

In addition to Doctor Orr, the new president-elect, the following officers were selected by the House on Thursday:

Doctor W. Linwood Ball of Richmond, Va., vice president; Doctor E. Vincent Askey of Los Angeles, re-elected speaker, and Doctor Norman A. Welch of Boston, vice speaker.

Doctor Warren W. Furey of Chicago was elected for a five year term on the Board of Trustees, succeeding Doctor E. S. Hamilton of Kankakee, Ill. Doctor Raymond M. Mc-

Continued on Page 498

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Keown of Coos Bay, Ore., was re-elected for a five year term, and Doctor R. B. Robins of Camden, Ark., was named to fill the unexpired term of Doctor F. J. L. Blasingame. Doctor Leonard W. Larson of Bismarck, N. D., was elected chairman of the Board at its organizational meeting after the Thursday elections.

Doctor George A. Woodhouse of Pleasant Hill, Ohio, was renamed to the Judicial Council. Elected to the Council on Medical Education and Hospitals were Doctor Leland S. McKittrick of Brookline, Mass., to succeed himself, and Doctor John V. Bowers of Madison, Wis., to succeed Doctor Victor Johnson of Rochester, Minn.

Doctor R. B. Chrisman, Jr., of Coral Gables, Fla., and Doctor J. F. Burton of Oklahoma City, Okla., were re-elected to the Council on Medical Service. For the same Council, Doctor Russell B. Roth of Erie, Pa., was named to fill the unexpired term of Doctor H. B. Mulholland of Charlottesville, Va., resigned.

Three members were elected to the Council on Constitution and By-Laws: Doctor William Stovall of Madison, Wis., to succeed Doctor Stanley H. Osborn of Hartford, Conn.; Dr. William Hyland of Grand Rapids, Mich., to fill the unexpired term of Doctor Floyd S. Winslow, deceased, of Rochester, N. Y., and Doctor Walter Bornemeier of Chicago, to replace Dr. Furey.

The House approved a Board of Trustees announcement that Miami Beach will replace Chicago as place of the 1960 Annual Meeting, and New York will be the site of the 1961 Annual Meeting. Action was postponed on selection of the city for the 1962 Annual Meeting.

Rising votes of appreciation were given to Doctor Hamilton; Doctor George F. Lull, retiring secretary, and Doctor J. J. Moore, retiring treasurer.

At the Wednesday session of the House the Illinois State Medical Society made another record state society contribution to the American Medical Education Foundation by turning over a check for \$177,500 to Doctor Lull, now foundation president.

Plans Announced For Oklahoma City Clinical Society

The Twenty-Eighth Annual Conference of the Oklahoma City Clinical Society will be held in the Biltmore Hotel, October 27, 28 and 29. Features of the meeting will include: general assemblies, clinical pathologic conference, roundtable luncheons, specialty lectures, dinner meetings and commercial exhibits.

Fifteen guest lecturers have been secured for the conference. They include Harold Gifford, Jr., M.D., Associate Professor of Ophthalmology, University of Nebraska College of Medicine, Omaha, Nebraska; Claude N. Lambert, M.D., Professor of Orthopedic Surgery, University of Illinois College of Medicine, Chicago, Illinois; Isadore Meschan, M.D., Professor and Director, Department of Radiology, Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N.C.; C. Thrope Ray, M.D., Professor and Chairman, Department of Medicine, University of Missouri School of Medicine, Columbia, Missouri; John T. Reynolds, M.D., Associate Professor of Surgery, University of Illinois College of Medicine, Chicago, Illinois; Russel B. Roth, M.D., Consultant Urologist, U.S. Veterans Administration Hospital, Erie, Pennsylvania; John M. Sheldon, M.D., Professor and Director, Department of Postgraduate Medicine, University of Michigan Medical School, Ann Arbor, Michigan; John Alexander Wall, M.D., Clinical Associate Professor of Gynecology, Baylor University College of Medicine, Houston, Texas; C. Knight Aldrich, M.D., Professor and Head, Department of Psychiatry, University of Chicago School of Medicine, Chicago, Illinois; James Barron, M.D., Associate Surgeon, Division of General Surgery, Henry Ford Hospital, Detroit, Michigan; Blair E. Batson, M.D., Professor and Head, Department of Pediatrics, University of Mississippi School of Medicine, Jackson, Mississippi; Parker R. Beamer, Ph.D., M.D., Professor of Pathology, Indiana University School of Medicine, Indianapolis, Indiana; Louis A. Brunsting, Sr., M.D., Professor of Dermatology, Mayo Foundation, University of Minnesota Graduate School, Rochester, Minnesota; Edwin J. DeCosta, M.D., Asso-

ciate Professor of Obstetrics and Gynecology, Northwestern University Medical School, Chicago, Illinois; and E. Gray Diamond, M.D., Professor and Head, Department of Medicine and Director of Cardiovascular Laboratory, University of Kansas Medical Center, Kansas City, Kansas.

Registration fee of \$20.00 includes all features. Further information may be obtained by writing to: Executive Secretary, 503 Medical Arts Building, Oklahoma City, Oklahoma.

Psychiatric Association To Meet in Wichita

On September 12, 13 and 14, the Mid-Continent Psychiatric Association will hold its annual meeting at the Lassen Hotel, Wichita, Kansas.

An "Early Bird" party will be held at the hotel on Friday evening. The scientific program opens Saturday morning with Robert W. Hyde, M.D., of the Butler Health Center, Providence, Rhode Island, and Robert Menninger, M.D., of Topeka, discussing "The Therapeutic Community." This will be followed by a panel discussion by James Galvin, M.D., Frank Adelman, M.D., Granville Jones, M.D., James Haddock, M.D., George Jackson, M.D. and Konstantin Geocaris, M.D.

On Sunday morning the scientific session will be on the subject of "Psycho-pharmacology," with L. J. West, M.D., of the University of Oklahoma, Arnold Scheibel of the University of California and Jackson Smith, M.D., of the University of Nebraska. Following this, there will be a panel discussion by Paul Feldman, M.D., Harold Meyers, M.D., Milford Ungerman, M.D., and Leopold Hofstatter, M.D.

For further information, contact Austin J. Adams, M.D., President, Mid-Continent Psychiatric Association, 3420 East Douglas Avenue, Wichita, Kansas.

Colloquy on Advances in Medicine To Be Held in November

The Second Oklahoma Colloquy on Advances in Medicine will be held on November 12, 13, 14 and 15 in the auditorium at the University of Oklahoma School of Medicine. It will be devoted to Arthritis and Related Disorders and is under the joint sponsorship of the Department of Medicine, University of Oklahoma, the Division of Postgraduate Education, Geigy Pharmaceuticals, Wyeth Laboratories, The Upjohn Company, Pfizer Laboratories, and Schering Corporation.

Eleven nationally prominent investigators in their field will participate and present the results of original work from their laboratories. Among the guest speakers will be: Alfred Jay Bollet, M.D., Assistant Professor of Medicine, Wayne University College of Medicine, Detroit, Michigan; R. H. Follis, Jr., M.D., Armed Forces Institute of Pathology, Walter Reed Army Medical Center, Washington, D.C.; Robert A. Good, M.D., American Legion Memorial Heart Research Professor of Pediatrics, University of Minnesota, Minneapolis; Alexander B. Gutman, M.D., Director, Department of Medicine, The Mount Sinai Hospital, New York; Ralph Heimer, Ph.D., Department of Rheumatology, Hospital for Special Surgery, New York; C. H. Slocumb, M.D., Mayo Clinic, Rochester, Minnesota; John H. Talbott, M.D., Professor of Medicine, University of Buffalo School of Medicine, Buffalo, New York; and Morris Ziff, M.D., Associate Professor of Medicine, New York University College of Medicine, New York.

On November 15 the University of Oklahoma football team will play the University of Missouri at Norman, Oklahoma. Registrants may apply for tickets by writing the Athletic Ticket Office, University of Oklahoma, Norman, Oklahoma.

Registration will be open to all physicians. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.



Eighty-three Graduate from O.U. School of Medicine

Eighty-three seniors received the degree of Doctor of Medicine in Commencement Exercises at Holmberg Hall, Norman, on June 1, 1958. Over one hundred School of Medicine faculty members in academic attire participated in the colorful ceremony. President George L. Cross, in conferring the degrees, reviewed the history of the school, the contributions by its Faculty, and the fundamental role of medicine in our society.

Individual recognition was given to each senior as he came on the stage to be hooded by Dean Mark R. Everett, assisted by Doctor George H. Garrison, Professor of Pediatrics and Chairman of the Faculty Board Committee on Undergraduate Education.

Following the hooding, the seniors were

led in public affirmation of the Sponsio Academica by Doctor Don H. O'Donoghue, Chairman of the Faculty Board. Music for the ceremony was provided by Doctor J. Moore Campbell, organist, and by the Medical School Glee Club. The graduating class was welcomed into membership of the Alumni Association of the University of Oklahoma School of Medicine by the president of the Association, Doctor A. B. Smith of Stillwater.

Over twelve hundred parents and guests attended the exercises and the reception given by President and Mrs. Cross in honor of the graduates. The graduating class appreciated greatly the participation of many faculty members and physicians in the Commencement.

Physicians Invited To Colorado Meeting

Oklahoma physicians have been invited to attend the Annual Session of the Colorado State Medical Society which will be held in Colorado Springs, September 24-27, 1958. An excellent scientific program, combined with ideal Colorado climate, should make this a particularly outstanding meeting. The headquarters hotel will be the Broadmoor.

Over one hundred scientific papers will be delivered during the four day period. Topics have been selected to attract the attention of all physicians, regardless of their special medical interests.

In addition to a special general session devoted to alcoholism, section meetings will be held in general surgery, internal medicine, otolaryngology, urology, laboratory medicine and anesthesiology.

Among the guest speakers for the event are: C. Ronald Stephen, M.D., Durham, North Carolina; Merle M. Musselman, M.D., Omaha, Nebraska; George E. Shambaugh, Jr., M.D., Chicago, Illinois; Louis E. Prickman, M.D., Rochester, Minnesota; and John B. Miale, M.D., Miami, Florida.

American Association of Medical Assistants To Meet in Chicago

Plans have been made for the Second Annual Convention of the American Association of Medical Assistants to be held at the Palmer House, Chicago, Illinois on October 31, November 1 and 2, 1958.

The American Association of Medical Assistants is made up of men and women employed as assistants in the offices of Doctors of Medicine. The Association was conceived in Kansas City, Kansas during the fall of 1955 when interested persons from fifteen states met to make plans for a formal or-

ganization. The second meeting was held the following year in Milwaukee, Wisconsin at which time a Constitution and By-laws were adopted and the Association formally set up. During this first official year, a great deal of work was done and the First Annual Convention was held in San Francisco, California in October, 1957. Now, with a membership of nearly 6,000 representing 17 states, and with the approval of the State Medical Societies and the American Medical Association, this Association is well under way.

The purposes of the Association are stated as follows: To inspire its members to render honest, loyal and more efficient service to the profession and to the public which they serve. To strive at all times to cooperate with the medical profession in improving public relations. To render educational services for the self-improvement of its members and to stimulate a feeling of fellowship and cooperation among the Societies. To encourage and assist all unorganized medical assistants in forming local and State societies. This Association is declared to be non-profit. It is not nor shall it ever become a trade union or collective bargaining agency.

Several states now offer fine educational courses with the cooperation of their colleges and universities which will help the assistant to become more valuable in the doctor's office. Physicians realize that the well-trained assistant is an asset to their profession and that these courses will relieve them of much of the time-consuming work of on-the-job training. The American Association plans to offer courses on a national level as soon as a suitable curriculum has been set up.

Membership in medical assistants societies throughout the country has provided an opportunity for the assistant to benefit from the many fine lectures, workshops and seminars as a part of regular programs.

The American Association of Medical Assistants is now offering its members a comprehensive insurance program. This is a salary replacement (sickness and accident)

plan with optional major hospital, nurse expense and surgical benefits.

It is to the advantage of the medical profession to have their medical assistants affiliated with this organization.

The American Association of Medical Assistants would welcome the opportunity to give information concerning the organization and to assist with the formation of County and State Societies. Inquiries may be addressed to Miss Hallie Cummins, R.R.L., Chairman of the Public Relations Committee, Medical Record Library, Caro State Hospital for Epileptics, Caro, Michigan.

"V.I.P. Meeting" Theme Of PR Institute

"Widescreen medical public relations" focusing on a broader segment of national life will be considered when key medical men meet in Chicago August 27 and 28 for A.M.A.'s 1958 PR Institute. The 1958 session at the Drake Hotel, billed as the "V.I.P. Meeting," is designed for physicians, medical society staff personnel and others working in the medical public relations field. The keys to the medical profession's public relations program in the year ahead are symbolized in the meeting title and will be revealed at the day-and-a-half-long session.

The workshop-styled program will get down to PR practicalities at its opening session with a discussion of medicine in a changing world. From the lead-off "what do you know?" session the meeting will move into deliberations on "what have you got to say?" "how do you say it?" "who do you know?" and "are they listening?"

Top people in related fields, including communications and human relations, will take part in the program. Oklahoma representatives will be: E. C. Mohler, M.D., President of the Oklahoma State Medical Association; J. R. Stacy, M.D., Chairman of the Public Policy Committee; and Don Blair, Associate Executive Secretary of the O.S.M.A.

A.M.A. Conducts Nursing Home Study

A field survey of approximately 25 skilled nursing homes in various sections of the country is being conducted this summer by that A.M.A. Council on Medical Service.

Primary purpose of visits to these public, proprietary and non-profit facilities will be to obtain data that will aid in developing recommended guides and standards governing medical care in nursing homes. It is expected that much valuable information will be gathered on other important phases of nursing home operation—including nursing care, social service, food service, staffing and personnel policies, and costs. Tentative plans call for publishing the results of the survey, along with suggested standards for medical care and supervision, this fall.

This field study is one of the activities which has grown out of meetings of the liaison committee of the American Medical Association and the committee's consideration of the adequacy of welfare payments for nursing home care, ways of financing new and improved nursing home facilities, and stimulation of a better working relationship between nursing homes and physicians at both the state and local levels.

International Communism

(Continued from Page 487)

Dr. Schwarz. The basic Communist strategy in 1952 renounced the inevitability of world war III. World conquest without war, which is called coexistence, became their basic strategy. I would not be surprised that they would like some disarmament, as all they look to from military might is a stalemate. If they can reduce the armament burden and retain this stalemate, they will have more funds available for propaganda, and political and economic warfare.

Mr. Arens. Thank you very much, Doctor. We deeply appreciate your contribution in this staff interrogation.

(Thereupon, at 4:15 p.m., Wednesday, May 29, 1957, the consultation was concluded.)

Coming Meetings

OKLAHOMA CITY CLINICAL SOCIETY

October 27, 28, 29, 1958

Biltmore Hotel Oklahoma City

The Twenty-Eighth Annual Conference of the Oklahoma City Clinical Society will be held October 27, 28 and 29 in the Biltmore Hotel, Oklahoma City. Registration fee of \$20.00 will include all features. Further information may be obtained by writing to: Executive Secretary, 503 Medical Arts Building, Oklahoma City, Oklahoma.

SECOND OKLAHOMA COLLOQUY

ON ADVANCES IN MEDICINE

November 12, 13, 14 and 15, 1958

The Second Oklahoma Colloquy on Advances in Medicine will be held on November 12, 13, 14 and 15. Eleven nationally prominent investigators in their field will participate and present the results of original work from their laboratories.

Registration will be open to all physicians. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

POSTGRADUATE PROGRAM

OREGON-OKLAHOMA

COMBINED SPECIALTY MEETING FOR PRACTICING PHYSICIANS

October 3-4, 1958

Oklahoma City

This combined specialty meeting will be held in the Auditorium of the University of Oklahoma School of Medicine. It has been planned to precede the Oregon-Oklahoma football game. Further information may be obtained by writing to: Office of Postgraduate Education, University of Oklahoma Medical Center, 801 Northeast 13th Street, Oklahoma City 4, Oklahoma.

COLORADO STATE MEDICAL SOCIETY

ANNUAL MEETING

September 24-27, 1958

Colorado Springs

The Colorado State Medical Society's Annual Session will be held at the Broadmoor Hotel, Colorado Springs, September 24-27, 1958. Further information may be obtained by writing to Harvey T. Sethman, Executive Secretary, Colorado State Medical Society, 835 Republic Building, Denver, Colorado.

UNIVERSITY OF COLORADO MEDICAL CENTER

1958 Postgraduate Courses

Denver, Colorado

THE PREVENTION AND MANAGEMENT OF ATHLETIC INJURIES*

August 25, 26, 27, 1958—Denver, Colorado

Don H. O'Donoghue, M.D., Orthopedic Consultant, University of Oklahoma; Thomas B. Quigley, M.D., Assistant Clinical Professor of Surgery, Harvard Medical School; Joseph P. Dolan, Ph.D., Research Professor of Physical Education, North East Missouri State Teachers College; Kenneth Rawlinson, Chief Trainer, University of Oklahoma and Jack Rockwell, Chief Trainer, University of Colorado will be speakers for this program.

*For detailed program and further information, write to: The Office of Postgraduate Medical Education, The University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20, Colorado.

AMERICAN BOARD OF OBSTETRICS AND

GYNECOLOGY

Applications for certification (American Board of Obstetrics and Gynecology), new and reopened, Part I, and requests for re-examination Part II, are now being accepted. All candidates are urged to make such application at the earliest possible date. Deadline date for receipt of application is September 1, 1958. No applications can be accepted after that date.

Candidates for admission to the Examinations are required to submit with their application, an unbound 8½ x 11 typewritten list of all patients admitted to the hospitals where they practice, for the year preceding their application, or the year prior to their request for reopening of their application.

Current Bulletins outlining present requirements may be obtained by writing to the Secretary's office: Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

AMERICAN COLLEGE OF OBSTETRICIANS

AND GYNCOLOGISTS

DISTRICT VII

September 12-13, 1958

Jackson, Mississippi

District VII, American College of Obstetrics and Gynecologists, will meet in Jackson, Mississippi September 12 and 13. The program consisting of scientific papers, round tables and movies will be held in the King Edward Hotel. Further information may be obtained by writing to C. G. Sutherland, M.D., The Woman's Clinic, 918 North State Street, Jackson, 2, Mississippi.

Coming Meetings (Cont.)

ACADEMY OF PSYCHOSOMATIC MEDICINE

October 9-11

New York, New York

The fifth annual meeting of the Academy of Psychosomatic Medicine will be held October 9-11, 1958, at the Park Sheraton Hotel in New York City. The program will be devoted to the Psychosomatic Aspects of Internal Medicine and will include formal papers, panel discussions and luncheon conferences.

Information may be obtained from Bertram B. Moss, M.D., Suite 1035, 55 East Washington Street, Chicago 2, Illinois.

SOCIETY FOR CLINICAL AND EXPERIMENTAL HYPNOSIS

October 29-30, 1958

Chicago, Illinois

The Society for Clinical and Experimental Hypnosis, an International Scientific Society, comprised of physicians, dentists and psychologists engaged in the clinical use of hypnosis, will present a scientific program in Chicago at the Morrison Hotel, October 29-31, 1958.

The program will include Breakfast Seminars, Round-table Luncheons, Panel Discussions and Formal Presentations. The Medical Program will include such topics as: Hypnotherapeutic Control of Habit Patterns: During Addiction, Smoking, Overweight; Hypnosis in Physical Therapy and Rehabilitation; Hypnosis in Asthma and Allergic Manifestations; Use and Abuse of Hypnosis in General Practice; Hypnosis in Pediatrics and Geriatrics; Hypnosis in Minor and Major Surgery; Hypnosis in Internal Medicine; Hypnoanesthesia in Obstetrics; Physiology of Hypnosis; and Hypnosis in Psychiatry.

Immediately preceding the Annual Meeting of the Society for Clinical and Experimental Hypnosis, the Institute for Research in Hypnosis of the Long Island University Postgraduate School will present its Annual Workshop in Clinical Hypnosis, October 27-29, at the Morrison Hotel.

Registration for Breakfast Seminars, Round-table Luncheons and General Sessions will be limited. For a copy of the program and more detailed information, write to the Administrative Secretary, Society for Clinical and Experimental Hypnosis, 750 North Michigan Avenue, Chicago 11, Illinois.

Have You Heard?

ROBERT E. HERNDON, M.D., has returned to Chickasha Hospital and Clinic after a brief stay in Salisbury, Maryland. He has been associated with the clinic since January 1955.

HERVEY A. FOERSTER, M.D., Oklahoma City, was elected Surgeon of the Reserve Officers Association at the United States national meeting in Atlantic City, June 25.

D. L. DYCUS, M.D., and K. H. BAGWELL, M.D., have established their practice in offices at 115 South Santa Fe, Norman, Oklahoma.

The following preceptors have been announced by the University of Oklahoma School of Medicine: DAYTON ROSE, M.D., Okemah; CHARLES CARMACK, M.D., Okemah; CLAUDE LIVELY, M.D., McAlester; and CHARLES K. HOLLAND, M.D., McAlester.

JACK L. COATS, M.D., formerly of Tulsa, is now associated with CLAYTON E. WOODARD, M.D., in Drumright.

W. RILEY MURPHY, JR., M.D., has joined the staff of the McAlester Clinic, specializing in obstetrics and gynecology.

RAFAEL RIGUAL, M.D., is now associated with J. C. PICKARD, M.D., in the Pasteur Medical Building, Oklahoma City.

AUSTIN H. BELL, M.D., Oklahoma City surgeon and chairman of the Oklahoma Division Executive Committee of the American Cancer Society, has been nominated a medical member of the National Society's Board of Directors. He will be one of two medical representative directors from Region VII of the Society.

JOHN R. REED, JR., M.D., formerly of Oklahoma City, is now associated with ORVILLE L. GRIGSBY, M.D., Nowata.

JAMES M. BAYLESS, M.D., a native Oklahoma Cityan, has joined the staff of the Community Hospital-Clinic in Elk City where he will specialize in obstetrics and gynecology.

Organization News

Doctor Turner To Lead Nuclear Medicine Society

Henry H. Turner, M.D., Oklahoma City, was elected President-Elect of the National Society of Nuclear Medicine at the society's recent annual meeting in Los Angeles, June 19, 20 and 21. He will succeed Henry Jaffe, M.D., Los Angeles, at the 1960 meeting of the group which will be held in Denver.

Since the membership of this organization is comprised of a variety of professions representing all areas of the United States as well as eight foreign countries, the honor has particular significance for Doctor Turner. Organized in Seattle in 1954, the young organization has grown from its original northwestern U.S. membership to its present world-wide strength of 1,273 physicians, dentists, engineers and scientists.

According to Doctor Turner, the purpose of the organization is "the development and exchange of scientific information in the field of nuclear medicine and to promote research and a clearer understanding of the problems related thereto." He further explained that there were ten regional chapters in the United States and one in Canada.

Well-known in organized medicine, Doctor Turner's leadership ability has often been recognized by other scientific groups. A former president of the Oklahoma State Medical Association, he is currently serving as Secretary-Treasurer of the American Endocrine Society and is a member of the Council of the Southern Medical Association. Among other honors, Doctor Turner has served as President of the American Therapeutic Society and as Vice-President of the American Goiter Society.

Journal Editor Elected To National Ad Bureau

Ben H. Nicholson, M.D., Oklahoma City, Editor of the *Journal*, was elected to the Board of Directors of the State Medical Journal Advertising Bureau at the Bureau's June 22 meeting in San Francisco. The organization serves as a central agency for the placement of the national and regional advertising in the thirty-three state medical journals.

As a representative sales agency for the member journals, the S.M.J.A.B. staff relieves the state organizations from much detail work, which, in turn, results in a considerable savings in personnel requirements at the local level. Last year, the Bureau showed gross sales in the amount of \$1,602,984.17, a \$324,535.77 gain over 1956. Although it is a separate entity from the American Medical Association, close cooperation exists from all standpoints, particularly in the approval of products submitted for advertising.

The *Journal* of the Oklahoma State Medical Association has a circulation of over 2100 and, in addition to its distribution to the membership, a considerable number of copies are sent to foreign countries on both a subscription and exchange basis. Advertising sales were increased by one-third during 1957.

Doctor Nicholson has served as editor of the *Journal* for almost five years. As a member of the policy-making Board, he will meet with other Directors prior to each annual meeting of the American Medical Association. Other members of the Board are: Chairman C. Grenes Cole, M.D., Louisiana; Wingate M. Johnson, M.D., North Carolina; Everett M. George, M.D., Iowa; and Edgar Woody, Jr., M.D., Georgia.



Oath of Hippocrates Presented to F. J. L. Blasingame, M.D.

A handsome etched Oath of Hippocrates, a gift of the physicians of the Oklahoma State Medical Association, was presented to F.J. L. Blasingame, M.D., Executive Vice-President of the American Medical Association, during the meeting of the House of Delegates of the A.M.A., June 25, in San Francisco.

Presentation of the gift, a complement to the Chicago office of Doctor Blasingame, was made by E. C. Mohler, M.D., pictured left above, President of the Oklahoma State Medical Association.

Doctor Moore Named Chairman of Annual Meeting

Edward L. Moore, M.D., Tulsa surgeon, has been named general chairman of the 53rd Annual Meeting of the Oklahoma State Medical Association to be held in Tulsa, April 20-22, 1959.

In making the appointment, E. C. Mohler, M.D., Ponca City, President of the O.S.M.A.,

said, "His experience with convention details makes him a logical choice for the assignment." Doctor Moore arranged the scientific program for the 1957 annual meeting.

Another Tulsa surgeon, Byron W. Steele, Jr., M.D., was selected as program chairman of the 1959 meeting.

Delegates Report on A.M.A. Meeting

The following reports from Oklahoma's Delegates to the American Medical Association was prepared for publication in the Journal:

DOCTOR PHELPS

As billed, the Annual Meeting of the A.M.A. is truly the biggest medical show on earth. The meeting June 23-27 in San Francisco was no exception. More than 38,000 people, including more than 16,000 doctors, were in attendance. Seventy-four Oklahoma physicians registered. Many were accompanied by their wives and families. All enjoyed the ideal, sun-shiny, cool weather which fulfilled the fondest hopes of the California Chamber of Commerce. As most of you know, there is ample attraction in this unique city to satisfy the most fastidious visitor.

Several of our Oklahoma doctors were on the scientific program and the complimentary remarks heard following their lectures warmed the hearts of all their fellow Oakies.

The House of Delegates Meeting at the Palace Hotel was indeed a busy place. General meetings were held all day Monday, Wednesday morning and all day Thursday, as well as reference committee meetings most of Tuesday.

One of the biggest margins of victory in any contested election was that scored by our own John F. Burton, M.D., immediate Past-President of the Oklahoma State Medical Association and former member of the House of Delegates of the A.M.A. Doctor Burton was elected to a full five-year term as a member of the Council on Medical Service, one of the most important councils of the A.M.A. Doctor Burton had previously been elected to complete an unexpired term on this council. He was one of the two nominated by the Board of Trustees of the A.M.A. His margin of victory is a tribute which he has earned. It also demonstrates the appreciation of the House of Delegates for his past accomplishments as well as the vast number of friends he has made.

Another highlight of the meeting of the House of Delegates was the presentation of a beautiful bronze plaque inscribed with the Oath of Hippocrates, presented on behalf of

the Oklahoma State Medical Association to the A.M.A. President E. C. Mohler, M.D. made the presentation to F. J. L. Blasingame, M.D., Executive Vice-President of the A.M.A.

Several of the Oklahoma doctors attended the sessions of the House of Delegates and were of great help to the two Oklahoma delegates.

Our senior Delegate, Wilkie Hoover, M.D., of Tulsa, was honored, being made Chairman of one of the Reference Committees so that he was unable to attend many of the other hearings.

The Alternate Delegates, E. H. Shuller, M.D., of McAlester and R. Q. Goodwin, M.D., of Oklahoma City, did yeoman's service in assisting the delegates and attending reference committee hearings. They also helped present the views of the O.S.M.A. to several of the reference committees and were well received by those in attendance.

No report of this meeting would be complete without paying special accolade to Marshall O. Hart, M.D., of Tulsa. Doctor Hart is always present at meetings of the House of Delegates and probably knows as much about the workings as any one from our state. He is a tireless worker and always a big help to the Delegates and Alternates.

In addition to those previously mentioned, Hugh Perry, M.D., President of the Tulsa County Medical Society and W. K. West, M.D., Oklahoma City, President of the Southern Medical Association, attended most sessions and also assisted the Oklahoma Delegates and Alternates in performing their tasks.

As usual, Mr. Dick Graham, Executive Secretary of the O.S.M.A. and Mr. Jack Spears, Executive Secretary of the Tulsa County Medical Society were ever present. Their behind the scenes work, as well as their sage advice has much to do with the success of the Oklahoma Delegation.

W. A. Showman, M.D., of Tulsa is the Delegate representing the A.M.A. section on Dermatology and while he officially represents this section we always consider him a part of the Oklahoma Delegation and this actually gives us a three vote representation.

A more complete report of actions of the House of Delegates is carried elsewhere in the *Journal*, but the following are some of the actions taken:

Louis M. Orr, M.D. Orlando, Florida was unanimously chosen President-Elect.

The 1958 Distinguished Service Award went to Frank Hammond Krusen, M.D., of Rochester, Minnesota.

For only the fourth and fifth time in history special awards to laymen were presented to Mrs. Charles W. Sewell of Otterbein, Indiana for her work in rural health and to Gobind Behari Lal, Ph.D., for his distinguished science writing.

The United Mine Workers Health and Welfare fund drew strong criticism and the House directed the Trustees to proceed immediately with a campaign to acquaint the public with their high handed arbitrary methods which result in inferior medical care. The Council on Medical Service was relieved of any further responsibility in this matter.

The House again reaffirmed its previous action opposing social security coverage for physicians.

The House of Delegates commended the principles of the Voluntary Health Agencies. These agencies should be free to conduct their own research programs, public and professional educational programs as well as fund raising in their own spheres of interest. The AMEF was requested to take no action which would endanger the constructive activities of the National Voluntary Health Agencies.

The House of Delegates pointed out that some 620 million dollars was spent last year for hospitalization by the Veterans Bureau. Seventy-five per cent had non-service connected disabilities. Congress was urged to restrict these admissions and it was recommended that the Dean's Committees restrict their activities to VA Hospitals admitting only service connected disabilities.

It was recommended that the Medicare program be changed so that those states desiring it could be paid on an indemnity, rather than on a service plan.

The House of Delegates lauded the operation of the Washington office of the A.M.A. and made suggestions as to how this service

could be more effective in public and government relations.

Medical Hypnosis was approved but Hypnosis for entertainment purposes was vigorously condemned.

The House endorsed recommendations by the Public Relations Department that:

The A.M.A. join other groups to seek elimination of objectionable advertising of over-the-counter medicines.

The Federal Food and Drug Administration was highly commended and states were urged to review and strengthen their food and drug laws.

The House of Delegates requested that public funds of social security and medical care of the indigent be administered by a voluntary agency such as Blue Shield, on a cost plus basis or by a specific agency established by the medical society of the state in which the indigent care is rendered.

The arduous task of helping represent Oklahoma in the House of Delegates of the A.M.A. has been made a rewarding experience by the loyal assistance and support of the doctors of this state.

I wish to thank all of you for the honor you have paid in electing me as one of your delegates. I will always do my utmost to present your viewpoint to this important body of American Medicine and work diligently to promote better medical care for both this state and this nation.—*Malcom E. Phelps, M.D.*

DOCTOR HOOVER

It continues to be a privilege and a pleasure for me to serve as one of the delegates from the Oklahoma State Medical Association to the House of Delegates of the American Medical Association. The San Francisco A.M.A. meeting in June was no exception. Of particular interest to Oklahoma physicians was the election of John F. Burton, M.D., to succeed himself for a five year term on the very important Council on Medical Services of the American Medical Association.

In view of the report of this meeting in preceding parts of this issue, I will make a report of the proceedings at a subsequent meeting of the Council.—*Wilkie D. Hoover, M.D.*

Association Health and Accident Insurance Program Revised

After exhaustive study of health and accident insurance programs and a comprehensive analysis of the current program operating in Oklahoma, the Insurance Committee, under the chairmanship of Ralph Smith, M.D., is now completing negotiations for an entirely new program for association members.

According to Doctor Smith, the old group insurance program was found to be inadequate to meet the present-day needs of the majority of physicians. Specifications were established for an expanded program and submitted to several insurance companies for competitive bids. The most attractive bid was made by the North American Accident Insurance Company, present underwriter of the association group program.

Final details are now being worked out between the committee and the insurance company before notifying the profession of the exact specifications of the new contract. It is anticipated that present policy holders will want to convert to the new program.

Other members of the Insurance Committee are: A. F. Dougan, M.D., Enid; C. E. Woodard, M.D., Drumright; Willard D. Holt, M.D., Altus; Ralph A. McGill, M.D., Tulsa; E. C. Yeary, M.D., Ponca City; Port Johnson, M.D., Muskogee; and Curtis Berry, M.D., Norman.

Journal Staff To Attend Regional Conference

Don Blair, Associate Executive Secretary and Mrs. Louise Martin, Editorial Assistant, will attend the second-biennial Regional State Medical Journal Conference which will be held in Austin, Texas on October 18 and 19. Started two years ago by the Medical Association of Georgia, the conference is designed to fill the interim-biennial gap between national meetings conducted by the State Medical Journal Advertising Bureau.

Three notable speakers are already slated for the meeting. They are Mr. James Liston, formerly special features editor of *Better Homes and Gardens* and now chief editor of *Today's Health*, the A.M.A.'s popular health

magazine; DeWitt C. Reddick, Ph.D., professor and acting director of the School of Journalism and Associate Dean of the College of Fine Arts and Sciences, University of Texas; and Bernice M. Moore, Ph.D., assistant to the director, Community Programs and Professional Education, Hogg Foundation for Mental Health, and Consultant, Home and Family Life Education, Texas Education Agency.

NFIP Announces New Program

A new program designed for a shotgun assault on major health problems of the nation, with arthritis and birth defects as initial targets, was announced July 22 by the National Foundation for Infantile Paralysis.

Basil O'Conner, President of the organization, said that the National Foundation, as it would now be known, would continue its virus research program and investigations of disorders of the central nervous system, and to these activities would add research and, eventually, patient aid in arthritis and birth defects (congenital malformations). Since funds raised during the last campaign are earmarked for the existing polio program, the new organization will not take action until 1959.

"An attack on any disease requires a program much broader in concept than is usually understood," Mr. O'Conner explained. "This is our concept for the future: the development of an organized voluntary force in the fields of medical research, patient care and professional education, flexible enough to meet new health problems as they arise, with specific goals initially," he added.

Arthritis Foundation To Continue

One of the new goals will be the same as an existing voluntary health agency, The Arthritis and Rheumatism Foundation. Efforts to achieve a merger between the two groups were unsuccessful. According to Floyd B. Odum, Arthritis Foundation Chairman, "... it is regrettable that they should not have seen fit to join forces with us in order to utilize our medical and scientific resources to carry on the advances we have achieved to date and thus to present a unified front to the problems of arthritis."



New Welborn Clinic Opened in Ada

Culminating several years of planning, the new Welborn Clinic was recently opened in Ada. Located immediately adjacent to the Valley View Hospital, the clinic is constructed of white Roman brick and contains approximately 3,000 square feet of floor space.

Construction began in February on the \$50,000 development of the L-shaped building. Facilities include a separate waiting room for children, a general reception room,

business office, emergency surgery, three consultation rooms, four treatment rooms, physio-therapy, x-ray and laboratory. The interior of the clinic features tile flooring throughout, panelled rooms and is completely air-conditioned. Various shades of brown are used in decorating.

The new clinic houses the offices of O. E. Welborn, M.D., and Orange M. Welborn, M.D.

LETTER TO THE EDITOR

Medical Care To Welfare Recipients

The one salient fact to be kept clearly in mind is that the Welfare Patient receives Medical care that is not excelled by any segment of our population.

In the collection of fees for services rendered, there is a divergence of opinions among doctors. I render my bill to the patient, who may either pay it himself, or members of his family will pay it, or if he has insurance coverage, the insurance company will pay it. If the patient has no money, his family has no money or he has no insurance coverage, my compensation is in knowing that I have been able to be of

service to a fellow human being less fortunate than I.

The Public Welfare Department says we have the money. All you need to do is ask us for it and we will gladly pay your fee. This I have never done and will not do because their money can only come from taxes and our taxes and our public debt are already too high.

Unfortunately many good doctors in our State are so intent on collecting their fees for services, that they either do not think where the Welfare Department money comes from or else they do not care. On the other hand there are many good doctors in our State that feel and do as I do.—A. L. Johnson, M.D., *El Reno, Oklahoma.*

25 YEARS
AGO



Articles published in *The Journal* of the Oklahoma State Medical Association August, 1933.

**DIETING THE MEDICAL AND SURGICAL ULCER
PATIENT**

Seale Harris, M.D.
Birmingham, Alabama

"... *The Futility of Giving Glucose or Dextrose Solutions by the Rectum.* Dextrose or glucose solutions when given by the rectal route are of questionable value. Having observed flatulency and abdominal discomfort in a number of our operated ulcer cases that we thought were due to the use of glucose and water by the Murphy drip, we request the surgeons who operate for us to spare the rectum and colon except for plain water enemata. Recent studies seem to prove that very little, if any, dextrose or glucose is absorbed from solutions given by the rectum. From experimental and clinical studies by McNealy and Williams, Pressman, deTakats and Schmidt and Cary, it seems that the use of glucose or dextrose solutions per rectum not only is futile, but may be actually harmful to the ulcer patient either before or after operation. Apparently American surgeons are discontinuing the use of proctoclyses of all kinds after gastric surgery, because as Strauss says they prefer to keep the intestines at 'absolute rest.'

"In a very timely article on the dangers of the surgeon's order to 'push fluids,' deTakats calls attention to 'the fear of dehydration that has swept the country.' DeTakats thinks that 3,000 to 4,000 c. c. in twenty-four hours is as much fluid as any patient should have before or after any operation; and that where there is myocardial damage, or kidney insufficiency or both, the fluid intake should be reduced very materially. The dehydrated, emaciated ulcer patient often has some cardio-renal damage and a weak heart may fail, and poorly functioning kidneys may allow what Rountree calls 'water intoxication' if an excessive amount of fluids is given.

"Certainly the safest and the most accurate methods of administering dextrose solutions, Ringer's solution and saline solutions before or after operations are subcutaneously and intravenously. The rectum should not be disturbed except to give plain water enemata, not more than 1,000 c. c. by the Murphy drip method once or twice a day before and after operations. If the patient cannot take fluids by mouth and one feels that he must give fluids by the rectum before or after an operation, undoubtedly the safest, surest and most comfortable method is the use of

Deaths

JOSEPH C. CANADA, M.D.
1903-1958

A former Oklahoma City physician and State of Oklahoma Public Health officer died in Washington, D.C., June 14, 1958. Lt. Col. Joseph C. Canada, M.W., 54, was Deputy Post Surgeon and chief of outpatient service and preventive medicine at the U. S. Army Hospital, Ft. Bragg, North Carolina prior to his illness.

Born in Grandfield, Oklahoma, in 1903, Doctor Canada received his degree from the University of Oklahoma School of Medicine in 1929. He maintained a general practice in Oklahoma City from 1931 to 1940, when he became a public health officer.

Doctor Canada was a Military Member of the Oklahoma State Medical Association and the American Public Health Association.

BURL EUGENE STONE, M.D.
1923-1958

Burl Eugene Stone, M.D., 34-year-old Lawton physician died June 28, 1958 in Lawton. Doctor Stone graduated from the University of Oklahoma School of Medicine in 1952. After taking his internship at St. Anthony's Hospital in Oklahoma City, Doctor Stone established his practice in Anadarko, later moving to Lawton.

Doctor Stone was a member of the Comanche-Cotton County Medical Society, the Oklahoma State Medical Association and the American Medical Association.

from 200 to 300 c. c. of warm tap water by enemata, given slowly through a soft rubber catheter, every two or three hours.

"*Transfusions.* Transfusions in preparing the undernourished, dehydrated, anemic ulcer patient for operation are of inestimable value. A transfusion of from 250 to 500 c. c. of blood provides the recipient with much needed nourishment, as well as other vital ingredients needed to carry him over the crisis of an operation. If the patient is very anemic and emaciated, one or more transfusions before and after operation may be a life-saving procedure. Undoubtedly transfusions are not employed as often as they are needed in the preparation of ulcer patients for operations. . . ."

General Practice

William Z. Cook, Jr., M.D., 1614 Wolverton, Ardmore, Oklahoma, age 31, married, graduated from University of Oklahoma School of Medicine, 1955. Will be available July, 1958 upon completion of military service.

Archie Neal McIntyre, M.D., 138 LeHardy Dr., Savannah, Georgia, age 28, married, graduated from Louisiana State University School of Medicine, 1955. Will be available November 3, 1958 upon completion of military service.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

Charles Edward Selah, M.D., Huey P. Long Charity Hospital, Pineville, Louisiana, age 31, married, will complete board requirements in June, 1958, veteran, graduated from Tulane 1951, will be available July 1, 1958.

Ralph L. Hopp, M.D., 338 E. Kingsley, Ann Arbor, Michigan. Married, veteran, Board Certificate held in General Surgery. Graduated Indiana University, 1950, will be available July 1, 1958.

Francis Patrick Lamb, M.D., 6426 Evergreen, Berkeley 21, Mo., age 35, married, veteran, graduated from St. Louis University in 1951, Diplomate American Board of Surgery, will be available July, 1958.

Internal Medicine

Robert Edward Weaver, M.D., 1133 West Frey Street, Stephenville, Texas, age 34, married, board certified in internal medicine, graduated from University of Pennsylvania School of Medicine, 1949, veteran, prefers to practice in or near a teaching center. Will be available August, 1958.

Wayne E. Hird, M.D., McGuire VA Hospital, Richmond 19, Virginia, age 31, married, Korean veteran, University of Kansas 1950, Board qualified in General Surgery, Thoracic and Cardiovascular exams will be completed by next July. Will be available July, 1958.

James L. Russell, M.D., Charity Hospital of La., New Orleans 12, La., age 30, veteran, graduated from University of St. Louis 1949, Board certified in General Surgery, Board qualified in Thoracic and Cardiovascular. Will be available August, 1958.

CLASSIFIED ADS

WELL EQUIPPED OFFICE for G. P. or O. B.-GYN. in downtown medical center, with background of large practice. Will lease, sell, or turn over everything for privilege of seeing a few old patients for two or three hours a week. Call JA 4-3203 or JA 4-3218, Oklahoma City.

CLINIC LOANS: If you are planning to build a clinic, and need to secure financing, call Pat Allen, WI 2-2402 or write 1201 Classen Dr., Oklahoma City.

RESIDENCIES IN PSYCHIATRY. Timberlawn Sanitarium, affiliated with the University of Texas Southwestern Medical School and Parkland Hospital, the teaching hospital of the University, provides experience in intensive psychotherapy, group psychotherapy, pharmacological and physiological therapies, social and preventive psychiatry. Residents participate in teaching and research. Child psychiatry, out-patient service, psychosomatic medicine and neurology Parkland Hospital second year. Graduates of U.S. medical schools only, eligible for Texas licensure. Two years general practice preferred. Stipend: First year \$4800. Second year \$5400. Write for details: Perry C. Talkington, M.D., Clinical Director, Timberlawn Sanitarium, P.O. Box 1769, Dallas 21, Texas.

WANT TO BUY: Late model diathermy machine and small sterilizer. Write Key A, c/o The Journal, Oklahoma State Medical Association, Box 9696, Shartel Station, Oklahoma City, Oklahoma.

FOR SALE: Physicians equipment including 100 M.A. Westinghouse x-ray with fluoroscope. \$2,500.00. Will sell x-ray separately. Contact Bob Grundy, Grundy Rexall Drug, Comanche, Oklahoma.

Editorials

Concerning a Change of Status of the Welfare Department's Medical Care Program

On July 29, the Association received a communication from Mr. L. E. Rader, Director of the Department of Public Welfare, which outlined the Department's previous unsuccessful efforts to interest private insurance companies or Blue Cross-Blue Shield in providing medical and hospital care for Public Welfare Department recipients in line with the recipients ability to pay from his Public Welfare grant.

From the context of the letter I infer that the Department of Public Welfare is interested in making its records covering 13 months of operation available to the Association and to the Oklahoma Hospital Association in order that further study and consideration might be given to Blue Cross-Blue Shield as the administrative agent. Previously Blue Cross-Blue Shield has indicated interest in administration only on a cost plus basis. Perhaps with the data of 13 months operation available for study, a straight underwriting program can be developed. The Association should consider this in the light of the following points many of which have been commented on editorially¹ in the *Journal*.

1. Such an arrangement will take public medicine out of government hands and put it in the hands of an agency created by the hospitals and doctors to permit people to budget their funds for in-hospital medical care. In this agency no profit accrues to anyone and its articles of organization specify that its boards of trustees shall be composed of representatives of the public, the physicians and the hospitals.

2. It would give the dignity of Blue Cross-Blue Shield membership to the retired citizen whose income is adequate for such care only by pooling the resources of the entire group. This is no different from the condition that presently exists among the middle wage group; an awareness of which

is the reason for the development of Blue Cross-Blue Shield in the first place.

3. The tax money is obtained from the sales tax. Of each sales tax dollar 76 cents goes for the subsistence of people in the old age group who cannot provide their own. The money that is used for medical care is taken out of this subsistence fund. It is, therefore, the recipients' own money which the public has given him for subsistence that is used. He pays and has paid the sales tax all along. Public Law 880 provides a Federal matching fund of \$3 per month for each recipient for medical care. The recipient matches this \$3. There is, therefore, \$6 in the pooled fund for each recipient. This spreads the cost of care for this group over the entire citizenry rather than imposing it only on the physicians, the hospitals and charity organizations.

4. We regard our own system of medical care as the best in the world. This arrangement would fit the public medicine considered necessary into that system. To accomplish this and keep government out of the practice of medicine would be worth considerable sacrifice.

5. A fee schedule would be mandatory and it would be necessary for there to be a service type rather than an indemnity type contract. We should waive our objections to accomplish number 4, and besides in this income group any fee at all is something; but any fee at all removes the old people from being objects of physician charity and provides them with the dignity that goes with the satisfaction of paying their own way even though it is money that has been given them through taxes. This is somewhat comparable to the groups for which the employer pays for Blue Cross-Blue Shield. Perhaps both of them have earned it.

6. Such an arrangement could be the development of a pattern for the care of other medically indigent groups within the frame-

⁽¹⁾ Editorials J.O.S.M.A. 50:369 (Aug.) 1957; 50:595 (Dec.) 1957; 51:235 (May) 1958.

work of the American system of medical care. We should avoid, if at all possible, the entrance of government into the administration of medical care for any group. In no other way can we be assured of retaining the best in our system. There would be little incentive for future generations of boys and girls to go into medicine if all they have to look forward to is a back-breaking panel and no more income than just enough to get by on.

7. To obtain these advantages we would have to be prepared for some risks. Such a program would be straight underwriting for in-hospital medical care with the requirement being only a need for hospitalization—not necessarily a life-in-danger one. The program would have to stand alone. Blue Cross-Blue Shield could not secure it with funds held in reserve for its present contract holders. There will be only so much money. At the present time this will be less than \$6 per month, per person, for the Public Welfare Department has also to provide nursing home care, nursing care in homes and other facilities for those who require care outside hospitals. If the money runs out before the end of the year, there just wouldn't be any more.

8. Perhaps this would be the incentive we need for working together to keep our own house in order by developing techniques that would prevent abuse. If everyone worked for the good of the group and the program—by not ordering hospitalization unless really needed and by sending the patient home as soon as good care would permit—there might be no need for the money to run out at all.—*B.H.N.*

The matter was considered by the Association's Committee on Medical Care for Recipients of Public Welfare of which Doctor Mark R. Johnson is chairman. The following letter was written to Doctor Johnson.

August 12, 1958

Mark R. Johnson, M.D.
1219 Classen Drive
Oklahoma City, Oklahoma

Dear Mark:

As I told you in our telephone conversa-

tion, an editorial will appear in the September *Journal* favoring every effort to work out a plan for Blue Cross-Blue Shield to take over the Administration of the medical care program for D.P.W. recipients. A companion editorial from you setting forth the reasons for your committee's opposite view would give the members a much better background for making up their minds should the matter come up before the House of Delegates.

It seems to me that the medical profession has a much greater responsibility for planning the care of medically indigent groups than only that of setting up a satisfactory fee schedule and insisting on the free choice of physician. It has the responsibility of seeing that these people are cared for within the framework of the American system of medical care. The average physician wants only to work and be let alone. It would be hazardous indeed, for him to be satisfied with the way the program has been administered by the Department of Public Welfare and, from what I hear, he is; because he has no security for its continued satisfactory administration beyond the present director and the present commission.

Third party medicine, unless we can control it, will ultimately lead to restriction of care to physicians who have demonstrable qualifications for that particular type of care. Some spokesmen for the U.M.W. are already pressing for this. In the case of general surgery the two demonstrable qualifications are certification by the American Board of Surgery and Membership in the College of Surgeons. There are many competent people in Oklahoma who have neither. In time, the Association can work out its own system of certification when it becomes necessary to do so, but not if we do not have some control of the third party. I know of no possible way to do so except through Blue Shield.

If, with your editorial, you wish to reply to this letter, it will be published also.—*B.H.N.*

The dead-line for Journal editorials did not give Doctor Johnson enough time. This editorial will, therefore, appear in the next issue.

Scientific Articles

Technique of Exchange Transfusion and Results Obtained in Erythroblastosis Fetalis

LEONCIO VALLARREAL, M.D. and G. R. RUSSELL, M.D.

During the past ten years, from 1948 to 1957, there were 35,279 livebirths at St. John's Hospital. Of these, 132 were diagnosed as erythroblastosis fetalis, which represents approximately .37% of the total number of livebirths (ratio 1:267) and 16 more cases of erythroblastosis fetalis were admitted from outside, making a total of 148 cases in this series. One hundred eleven babies were treated by means of exchange transfusions and 37 were treated with repeated small transfusions or not treated at all (Table I).

The type of incompatibility was found to be Rh in 72.9%, ABO in 18.9% and unknown in 8% of the cases where the diagnosis was made on the basis of clinical findings.

In the selection of cases to be exchanged, once the diagnosis has been established, we follow a policy similar to that carried out in most medical centers. Exchange transfusion is indicated under any of the following instances: (1) if the baby shows signs of disease within the first 24 hours of life (signs such as jaundice, hepatosplenomegaly, petechia, and so forth) or a hemoglobin of less than 15 Gms.%; (2) if there is a history of previous erythroblastotic babies; (3) if mother's anti-Rh titer has been high during pregnancy and (4) if the bilirubin level is high in the baby's serum.

The indication for repeated exchange transfusion is based on the bilirubin level only. Our limit is 20 mg.% unless the patient shows signs of brain damage with lower levels. One of the babies developed kernicterus with a bilirubin level of only 13 mg. per 100cc (Table II).

We repeat the exchange transfusion as

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This paper was presented at the Fourth Annual Meeting of the Oklahoma Association of House Staff Physicians on May 23, 1958.

G. R. Russell, M.D., graduated from the Western Reserve Medical School in 1925. After taking his internship at the University Hospital, Cleveland, Ohio, he served a two-year residency at the Babies and Childrens Hospital and City Hospital in Cleveland. Later he served Teaching and Research Fellowships in Pediatrics at Western Reserve Hospital and in Marburg, Germany.

At the present time, Doctor Russell is practicing in Tulsa and is a member of the teaching staff at St. John's Hospital.

Doctor Russell is a member of the American Board of Pediatrics and a Fellow of the American Academy of Pediatrics.

many times as it is necessary to keep the bilirubin under control. In our short experience we have found that the majority of the babies require just one or two replacements, however three, four and even five have been necessary in a few instances to keep the bilirubin level on the safe side.

The blood selected for exchange transfusion is as fresh as possible, group O Rh neg. for Rh incompatibilities, and specific type for the ABO group. If both mother and baby are Rh positive, blood that is not agglutinated by mother's serum is used.

As far as the technique of exchange transfusions is concerned, it would seem to be a simple and safe procedure when it is carried

Year	No. of Births	Liveborn Erythroblastosis	%	Cases from out of Town	Exchanged	Repeats
1948	2,697	3	.11	0	2	0
1949	2,936	9	.30	0	7	0
1950	3,043	4	.13	2	2	0
1951	3,349	7	.20	1	3	0
1952	3,413	11	.32	2	6	0
1953	3,579	7	.19	0	3	0
1954	3,857	16	.41	3	17	2
1955	3,967	26	.63	2	24	7
1956	4,239	29	.68	3	28	18
1957	4,199	20	.47	3	19	15
Totals	35,279	132	.37	16	111	42

TABLE I.—Liveborn Erythroblastosis and Exchange Transfusion at St. John's Hospital.

out carefully and complicated or expensive equipment is not required. The set we have been using at St. John's Hospital has been simplified as much as possible and has proved to be safe, easy to manage and to keep clean. The most important part of this set consists of a 20 c.c. Luer lock syringe, two three-way stopcocks, the umbilical vein cannula and rubber tubings for the donor's blood and waste basin.

For the past two years we have been using a regular infant feeding tube (gavage tube) size eight French, 15 inches long, as the umbilical vein cannula. This tube provides several advantages: a rounded tip that goes easily into the vein without injuring the walls; two lateral holes which provide a better flow of blood; there is no need for a needle between the tube and the syringe which reduces the chances of blood clotting; and finally, its bigger caliber makes the job easier and faster.

The baby is immobilized on a circumcision

Times Replaced	No. of Cases	%
1	69	62.1
2	29	26.1
3	11	9.9
4	1	.9
5	1	.9
Totals	111	99.9

TABLE II—Per cent of repeats.

board and a hot water bottle placed between the baby's back and the board to maintain a proper body temperature. The stomach, esophagus and the posterior pharynx are cleared of all mucus and fluid before the procedure is started. Once the baby is immobilized, the umbilical cord and the abdomen are sprayed with tincture of Zephiran and the sterile drapes are applied. The baby's face is left clear so that its reactions may be observed. The syringe connected to the three-way stopcocks and gavage tube is placed on the sterile sheets close to the baby. The rubber tubings are connected, one between the distal stopcock and the donor's blood; the other between the proximal stopcock and the waste basin. The whole system is cleared of air with normal saline solution and is then ready to be used. The umbilical cord is cut off at about one cm. from the skin margin whenever possible. If the cord is completely dried it must be cut off as close as possible to the skin surface. The vein is recognized as the largest structure in the cord. Once it is found, one edge of the vein is picked up with a mosquito forceps and clots are removed with gauze or skin forceps. The gavage tube is then gently inserted, making slight suction until a free flow of blood is obtained. This free flow is usually obtained at a distance of two and one-half to three inches from the skin surface. If the cannula is inserted further than that there is danger of entering the right auricle. Venous pressure is taken

as soon as blood flows freely. A cord tie is usually unnecessary.

Twenty c.c. of blood are taken from the baby and replaced with 10 c.c. only of donor's blood for the first one or two times to make a deficit of 20 c.c. (or 10 c.c. in small babies). The main purpose of this deficit is to be sure that the baby is not given more blood than is taken out, and this will be replaced at the end of the exchange.

From this point on the exchange transfusion is an alternate withdrawal and introduction of small volumes of blood (20 c.c. at a time or 10 c.c. when patient is in a poor condition) until a whole unit of 500 c.c. is used. The deficit made in the beginning is replaced and samples of blood are taken from the last blood obtained from the baby for tests. Each 20 c.c. in and out is carefully recorded on special sheets, with aggregate totals and time for each procedure also recorded.

Calcium gluconate, 10% solution, is given in amounts of one to two c.c. every 100 c.c. removed, depending on the size and degree of irritability of the baby. Oxygen is also given per mask continuously at slow rate and suction is made whenever necessary during the procedure.

Venous pressure is checked again at the end of the replacement. A "purse-string" suture is put in place around the vein and tightened after the tube is removed to prevent bleeding, and also to easily identify the vein in case replacement has to be repeated. A sterile dressing is also applied.

Penicillin is given routinely for at least three days as a prophylactic measure and

the patient is observed carefully. A serum bilirubin is done every four to eight hours.

Our results have been as follows (Table III): A total of 111 cases of erythroblastosis fetalis were treated by exchange transfusion. Kernicterus occurred in four in spite of replacement. Of these, two were premature and in poor condition. Nine patients died during or after replacement was done. Five of these presented the picture of hydrops fetalis but lived long enough for treatment to be attempted; one other had extensive atelectasis.

Complications such as embolii, congestive heart failure or ruptured spleen have not been observed, however, respiratory arrest occurred in two patients, each of which required artificial respiration and stimulants, but later did well. Secondary anemia was found in 13 babies who had an exchange. Four babies out of 37 not exchanged developed kernicterus, secondary anemia was found in 20 and the total number of deaths was 12.

Our conclusions are: (1) the incidence of erythroblastosis fetalis has been low at St. John's Hospital for the past ten years; (2) exchange transfusion is simple and reasonably safe procedure, which should be done early and liberally, since that is the best way so far known to prevent kernicterus; and (3) the incidence of secondary anemia in erythroblastosis fetalis appears to be decreased by exchange transfusion.

Summary

A review of 35,279 livebirths at St. John's Hospital, Tulsa, Oklahoma, has been reported. Incidence of erythroblastosis fetalis has also been reported. The value of exchange transfusion in the prevention of kernicterus has been observed and the technique of such a procedure has been briefly described and found to be an easy and reasonably safe procedure, which done early and liberally is the best treatment so far known for erythroblastosis fetalis and prevention of its sequelae.

Leoncio Vallarreal, M.D.
St. John's Hospital, Tulsa, Oklahoma

	Cases Exchanged	Cases not Exchanged
Total in 10 yrs.	111	37
Kernicterus	4 (3.6%)	4 (10.8%)
Sec. Anemia	13 (11.7%)	20 (54%)
Deaths	9 (8.1%)	12 (32.4%)

TABLE III—Sequelae and Mortality related to Exchange Transfusion

PERICARDITIS

LOUIS A. SOLOFF, M.D.

Pericarditis by common usage refers to any proliferative or exudative reaction of the pericardium, whether inflammatory or not. With the exception of primary tumors and congenital anomalies of the pericardium which are rare, all of these reactions are secondary to disease elsewhere. Nevertheless, the clinical onset or recognition of pericarditis may be primary so far as historical or physical examination can detect. Thus, acute non-specific pericarditis and far advanced tuberculous pericardial effusion may be both primary from a clinical standpoint. On the other hand, pericarditis may be a contributing finding in an otherwise significant illness, such as viral pneumonitis; or may be a diagnostic or prognostic clue such as occurs in myocardial infarction, uremia, neoplasm, lupus erythematosus, scleroderma or a variety of collagen diseases; or, pericarditis may make an illness significant when it would otherwise be trivial such as purulent pericarditis following a stab wound of the heart. Fortunately, with the advent of chemotherapy and antibiotic therapy, purulent pericarditis secondary to contiguous inflammation or neoplastic erosions are rare. Finally, a pericardial reaction may be completely silent as occurs in hypothyroidism.

Clinically, one can classify pericarditis simply into two types, acute, which is both proliferative and effusive, and chronic, which is proliferative with effusion or without. This proliferative reaction, with or without effusion, may produce constriction (or restriction) of myocardial motion.

One may also classify pericarditis according to its primary causes. Acute pericarditis of unknown cause is called acute non-specific pericarditis. It is very unlikely that this term represents a collective concept which includes many different diseases probably primarily of viral origin. Pericarditis may be of tuberculous or rheumatic etiology. These three types form the commonest of significance. Traumatic pericarditis is us-

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This paper is part of a talk given at the 52nd Annual Meeting of the Oklahoma State Medical Association, May, 1958, in Oklahoma City.

usually obvious. Pericarditis secondary to myocardial infarction represents primarily a diagnostic clue and uremic pericarditis a prognostic clue. Pyogenic pericarditis is likewise usually obvious. On the other hand, pericarditis secondary to neoplasm or allergy is frequently overlooked. Pericarditis due to diseases of collagen will be diagnosed with greater frequency if one recognizes that pericarditis is actually common when these systemic diseases are present.

The diagnosis of pericarditis is certain if a friction rub is heard. Indeed, this single sign is diagnostic even in the absence of any other sign and in the absence of symptoms. It, or course, frequently occurs in the presence of other suggestive symptoms and signs which I shall enumerate. But it is important to know that even as an isolated finding it is diagnostic and, indeed, perhaps the only clinically pathognomonic sign of pericarditis.

There are two clinically suggestive syndromes which are quite common and which make the diagnosis of pericarditis usually obvious.

The first is that called acute non-specific pericarditis¹ which frequently occurs in young adults and may or may not be preceded by a clinically evident mild respira-

tory tract infection. This illness is frequently ushered in by severe pain. The pain is commonly precordial in location but may occur elsewhere such as in the neck or back. The pain is aggravated by breathing, by swallowing and by a change in position. With this pain, shortness of breath to some extent is usually present and this shortness of breath may be relieved by the change in body position and particularly by leaning forward and may be aggravated by coughing. There are, of course, the general symptoms and signs of infection.

With this clinical syndrome, the diagnostic signs are the almost immediate presence of a friction rub usually intensified by quick changes in body position and characteristic serial electrocardiographic changes. The friction rub is usually best heard in the left third and fourth space in the precordial region. The two phases of the friction rub are synchronous with the heart sounds, are apparently close to the ear and both sounds are of almost equal pitch and intensity. Occasionally, only the systolic or diastolic component may be present but if this is so, the sounds change quickly from day to day and frequently can be changed by quickly changing the body position.

The elevation of J in the electrocardiogram is followed by a persistence of concavity of the ST segment, a finding of particular importance in differentiation from myocardial infarction, particularly when the deviations of J are not concordant. An absence of changes in the initial deflection of the electrocardiograms are, of course, also characteristic and important in differential diagnosis.

Acute non-specific pericarditis requires nothing but symptomatic therapy and rest. The illness rarely lasts more than 10 days to three weeks. Pain, however, of a mild and recurrent type and also, at times, fever, may persist for several months and should not be mistaken for serious heart disease. It is important to bear in mind that tuberculous pericarditis may be ushered in with acute symptoms which can mimic entirely the syndrome of non-specific pericarditis. It is particularly for this reason that these patients should be under observation to

make certain that complications are not present. Constrictive pericarditis, however, may on rare occasions follow acute non-specific pericarditis. I have also seen massive pericardial effusion as a temporary complication of this disease which makes the differential diagnosis from tuberculous pericarditis all the more difficult.

The second clinical syndrome is that of acute tamponade which most commonly occurs after trauma, hemorrhage and, less frequently today, after infections. The characteristic clinical syndrome is that of increasing venous hypertension as manifested by distended engorged neck veins and progressive arterial hypotension associated with tachycardia and a paradoxical pulse. A paradoxical pulse is characterized by a diminution in the volume of the pulse with inspiration. Usually this diminution is sufficient to lower the systolic blood pressure by more than 10 mm Hg.

Pericardial effusion alone forms another clinical syndrome which, however, is not always easily recognized. One should suspect the possibility of pericardial effusion whenever there is unexplained enlargement of the cardiac silhouette. If, in addition, a friction rub is heard, pulsus paradoxus is present and there has been an enlargement of the liver which has preceded edema of the lower extremities and if the circulation time is relatively normal compared to the increased venous pressure, the diagnosis is almost certain. The diagnosis also appears very likely if there has been a sudden increase in size of the so-called cardiac silhouette. One should, of course, always suspect pericarditis when the heart is enlarged in the presence of systemic disease which frequently or occasionally is associated with pericarditis.

If the specific cause of a pericardial effusion is not obvious, a pericardial tap is indicated to establish its cause. Treatment depends upon the nature of the pericardial effusion. A massive pericardial effusion which has developed insidiously in a middle aged person, usually colored, usually is of tuberculous origin. In my own experience, collagen diseases, particularly lupus erythematosus and scleroderma are commoner

causes of pericardial effusion than tuberculosis. Neoplastic diseases also rank high as well as do operations on the heart. It has been very surprising to me to find pyogenic pericarditis rare even after stab wounds of the heart by instruments which were anything but sterile.

The last clinical pericardial syndrome is that due to constriction² (or restriction). This complication is suspected whenever calcification of the pericardium is seen, which occurs in about 60 per cent of persons with constrictive pericarditis. One should suspect constriction whenever enlargement of the liver has preceded edema of the lower extremities and particularly when congestion appears to be out of proportion to the so-called cardiac size. It is important, however, to bear in mind, that more than one-half of all persons with constrictive pericarditis have a so-called cardiac silhouette above normal. Part of this increase in size is unquestionably due to the thickness of the pericardium which may reach actually 2-3 cm. but part may also be due to encapsulated effusions as well as to pre-existing cardiac enlargement.

Although the diagnosis of pericarditis is usually made with confidence when the syndrome of acute non-specific pericarditis is present and also when a friction rub is present and also when acute tamponade is present, the diagnosis of pericarditis when pericardial effusion or constrictive pericarditis, the two important types of pericarditis, is not made so frequently with confidence particularly when calcification is absent. In my experience, pericardial effusion has frequently been mistaken for intrinsic cardiac enlargement. On the other hand, constrictive pericarditis has been diagnosed when diffuse myocardial disease has been present. For these reasons, we have searched carefully for methods of establishing the diagnosis with certainty. The findings on catheterization,³ namely, a minimal and almost uniform increase in systolic pressure throughout right circuit of the heart followed by an early systolic dip which is succeeded by a sustained diastolic plateau the pressure of which is more than one-third of the pulse pressure is not pathognomonic of pericarditis. Such findings may be present

in any type of diffuse myocardial disease including rare diseases such as amyloidosis and probably endomyocardial fibrosis. Venous angiocardigraphy⁴ supplies a definitive answer.

Venous angiocardigraphy may be carried out with gas^{4,5} (pure carbon dioxide) or iodine containing liquid contrast substances. Carbon dioxide outlines the outside borders of the superior vena cava, right atrium and right ventricle and is therefore of value if fluid is adjacent to this border. Constriction, characterized by a rigid right atrial border and a loss of normal outward convexity, has been present in all our patients. The liquid contrast substance reveals fluid as a homogenous density surrounding the opacified heart of varying width. Occasionally, fluid may be more abundant on the left side and posteriorly. Furthermore, opacification of the whole heart permits an evaluation of myocardial function which may be impaired in pericarditis with constriction^{6,4} or effusion.⁴

Summary and Conclusions

1. Pericarditis is an inflammatory and/or exudate reaction to the pericardium which can be classified into an acute and chronic stage and further subdivided into its underlying causes.

2. Clinical syndromes are briefly described. These are: (1) friction rub, (2) acute non-specific pericarditis, (3) acute cardiac tamponade, (4) pericardial effusion, (5) constrictive pericarditis. The last two may escape clinical detection.

Venous angiocardigraphy is offered as a method of providing a confident diagnosis of either constrictive or effusive pericarditis or both.

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JAMES PARKINSON

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James Parkinson, a general practitioner, probably did not realize that his name would become eponymous when he published his *Essay on the Shaking Palsy* in 1817. In all likelihood he thought he would be remembered more for his endeavours and works in palaeontology. He also might have wondered if posterity would acclaim his campaigns for Parliamentary reform during the reign of George III. But most of his works, except for his concise description of paralysis agitans, are forgotten.

Little is known of his early life and education. He was born April 11, 1755 in Shore-ditch, part of London. His father was an apothecary and surgeon, and, as was not uncommon for the day, James became his apprentice, and later took over his practice. His education and training were gained primarily from experience and instruction from his father. In 1785, however, he attended John Hunter's lectures on the principles and practice of surgery. He took these down in shorthand and afterwards transcribed them. They were published nearly fifty years later by his son, J. W. K. Parkinson, as, *Hunterian Reminiscences: Being the Substance of a Course of Lectures Delivered by the Late Mr. John Hunter*. Even though Parkinson lacked formal medical training, we are able to get a picture of his opinion as to what constitutes adequate training for the times from his book, *The Hospital Pupil: or, An Essay Intended to Facilitate the Study of Medicine and Surgery*. In this he emphasizes the need for a university background and a knowledge of Latin, Greek and shorthand.

In England during the 1780's and 90's, following the American and French Revolutions, there was a clamour for Parliamentary reform and change of the existing excise laws, lack of proportional representation, discrimination against the working classes, etc. Numerous societies and secret groups were formed to promote these and

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other causes. Parkinson, attracted by the plight of the poorer classes and the inequities in the laws, became a reformer and radical, and joined two of these groups, the Society for Constitutional Information, and the London Corresponding Society. He wrote several articles and pamphlets published between 1792 and 1795 under the name of "Old Hubert." Many of these were very humorous, some rather violent, but all had good circulation. In one, *The Budget of the People*, he says,

The illjudged opposition of the voice of the collective body of the people in a cause peculiarly their own, will, in all probability, render the triumphs of the friends of freedom more complete and this, perhaps, at no very distant period.

In another, *An Address to the Hon. Edmund Burke, from the Swinish Multitude*, which is a reply to Burke's denunciation of French democracy, he concludes:

Let us then be all esteemed as swine together; we will be satisfied with the plain appellation of the *swinish multitude*, whilst you and your friends who are so fond of distinction, shall be termed HOGS OF QUALITY.

When more violent elements of the populace began to riot in parts of London, the officers and many members of the reform societies were arrested. Among the imprisoned were several of Parkinson's friends, and more than one was executed for treason.

Parkinson himself was called to testify at the trial of some of his colleagues who were arrested because of their implication in the Popgun plot. This was an alleged plot to assassinate George III in the theater by means of a poison dart discharged from a popgun. William Pitt was present at the trial which lasted several days. Parkinson was examined under oath and admitted being a member of the Committee of Correspondence of the London Corresponding Society, and writing various pamphlets. His testimony could have incriminated him in the plot, but he remained honest and forthright in his statements which did much to aid his friends and bring to light the true nature of the plot, which was more a farce than a real attempt on the King's life.

Parkinson published other essays dealing with political matters after 1795, but he no longer actively participated in the controversies. He now had a large practice and was spending more time in search for fossils. McMenemey says there can be little doubt that the writings of Parkinson played an important part in this clamour for reform, for in an age of illiteracy there were few men of culture who were able to express, and at the same time be familiar with, the grievances of the man in the street.

Parkinson mentions:

Aware of the necessities of devoting the few leisure hours, which the duties of my calling left at my disposal, to some rational and amusing occupation, I have always cultivated, more or less assiduously, some branch of art or science, and thence acquired an enthusiastic admiration for the beauties of nature, and an insatiable curiosity to pry into the mysteries of the natural world.

When he became interested in palaeontology per se, we do not know, but in his book on Chemistry, published in 1801, he advertises that he is "engaged in researches respecting extraneous fossils, with the intention of publication," and "earnestly solicits assistance by such communications, and by such specimens or accurate drawings, as may serve to give value to his work." He had made frequent excursions to nearby quarries, pits, and ledges in search of fossils, shells, and other specimens. He had collected these for several years, and had made drawings of many of them. He

said he was determined to classify all these curious animals in stone. The first volume of this famous work, *Organic Remains of a Former World*, was published in 1804, the second in 1808, and the third in 1811. The work went through two editions, the last in 1833. It was considered to be the first standard authority of its kind, and Gideon Mantell, a noted British palaeontologist stated:

The publication of Mr. Parkinson's *Organic Remains of a Former World* at the commencement of the present century must be regarded as a memorable event in the history of British Palaeontology: it was the first attempt to give a familiar and scientific account of the fossil relics of animals and plants, accompanied by figures of the specimens described.

Parkinson was well known in the geological circles in London. In 1807 when the Geological Society of London was founded, he was among the eleven original members. He published other geological papers and in 1822 completed his *Outlines of Oryctology. An Introduction to the Study of Fossil Organic Remains*. It is described as a "veritable textbook with a detailed catalogue of all that was known about fossils in 1822, providing a mine of information for the serious student." It begins:

Oryctology is the science which inquires into the nature, origin, and formation of those bodies which possess the figures, markings, or structure of vegetables or animals, whilst their substances evinces their having been preserved through many ages, by certain changes effected in subaqueous or subterranean situations.

And ends:

From these several creations it appears that beings have proceeded, gradually increasing in superiority, from testaceous animals to reptiles, fish, marine and fresh-water amphibia, quadrupeds, and lately to man, who, in his turn, is destined, with the earth he inhabits, to pass away, and be succeeded by a new heaven and a new earth.

As a final commemoration of his geological efforts, Mantell and others named several specimens in his honor.

Parkinson wrote on other subjects besides political reform and geology. His book on Chemistry was a small text-book on inorganic and physiological chemistry, and went through several American and English editions. He wrote a medical book giving ad-

vice to the lay public which covered all aspects of disease and health. The book, *The Villager's Friend and Physician; or, A Familiar Address on the Preservation of Health, and the Removal of Disease, on its First Appearance*, was written as the conversation of an old village physician. Along the same line was his book addressed to children, "warning them against wanton, careless or mischievous exposure to situations from which alarming injuries so often proceed." His other works include pamphlets on the Poor Laws and the legislation concerning mental institutions.

He was as active medically as he was in other fields, and published works on gout, tetanus, typhoid, hydrophobia, and trusses. At the age of twenty-five he published his first medical paper, which was a challenge to and criticism of a series of published lectures of a successful practitioner, Dr. Hugh Smith. His prime contribution to medicine, however, besides his essay on the shaking palsy, was his description of the first case of appendicitis in the English literature. In 1812 he and his son saw a five year old boy with signs of abdominal inflammation who shortly died. At autopsy they found general inflammation of the peritoneal cavity that appeared to have spread from the vermiform appendix which contained a fecal concretion and was perforated. This case was reported to the Medical and Chirurgical Society and subsequently published.

Parkinson's claim to posterity, regardless of his other feats, seems to rest on his description of the Shaking Palsy. He made no detailed clinical or pathological study, but merely observed six cases, and read and reviewed the previous literature on the subject. His description, nevertheless, is quite clear, and he accurately describes his observations. He defines the Shaking Palsy as:

Involuntary tremulous motion, with lessened muscular power, in parts not in action and even when supported; with a propensity to bend the trunk forwards, and to pass from a walking to a running pace; the senses and intellects being uninjured.

Although he fails to bring out such manifestations as rigidity, he implies it in some passages. The essay is well worth reading,

the history and case descriptions being particularly interesting.

Parkinson died at the age of sixty-eight years, having retired and turned over practice to his son sometime before. Mantell, who gives us many clues to his life and work, described him "as rather below the middle stature, with an energetic, intelligent, pleasing expression of countenance and of mild and courteous manners; readily imparting information either on his favorite science or on professional subjects." Rowntree notes that his unusual style of writing probably attracted some attention to his works. He says, "one is tempted to read on not so much because of the matter as because of the somewhat unusual and interesting method in which he reveals his ideas. He is verbose and his sentences are complicated but readily understood. This peculiarity is common to all his writings."

Parkinson, although a general practitioner, was truly a doctor afield. Little was mentioned of him until Rowntree's paper in the *Bulletin of the Johns Hopkins Hospital* in 1912. He was revived again in 1955 with Critchley's fine book including Parkinson's biography, his *Essay on the Shaking Palsy* and the current clinical and pathological opinion on the disease. Garrison summarized his contributions: "an able geologist and palaeontologist, he is memorable, with Avicenna, Fracastorius, Stensen, Hutton, Wollaston, Owen, and Huxley as one of the many medical men who have contributed something of permanent value to these sciences."

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Management of Rheumatic Heart Disease

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Since carditis is the most serious manifestation of rheumatic fever, often leading to permanent disability or death, its prevention is the real goal in the prevention of first or recurrent attacks of rheumatic fever. Because of space limitations this review will be devoted primarily to acute rheumatic carditis.

In children less than six years of age carditis is often the presenting symptom of rheumatic fever whereas in older individuals it more commonly makes its appearance during subsequent attacks. Pathologically there is a pancarditis with involvement of the pericardium, myocardium, and endocardium.

No specific therapy is available for rheumatic heart disease. Although salicylates and adrenocortical hormones have been widely used, there is still no agreement as to whether these compounds offer merely symptomatic relief or whether they decrease the severity of the rheumatic process including that occurring in the heart. Although the response of rheumatic polyarthrititis to salicylates is often dramatic, the effect on carditis, with the exception of pericarditis, is equivocal. Pericarditis like polyarthrititis is an exudative reaction and often appears to respond to salicylate therapy. It should be borne in mind, however, that the course of pericarditis is extremely variable and the manifestations often subside without treatment.

It is also not clear whether adrenal steroids offer merely symptomatic relief or actually alter the course of rheumatic carditis. Several important questions concerning the use of ACTH, cortisone, and related agents may be raised: 1. Do these drugs suppress the rheumatic inflammatory process includ-

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ing that which involves the heart? Although it is difficult to quantitate, a number of case reports illustrating the suppressive effect of these agents on the rheumatic inflammatory process provide strong clinical support for the assumption that they may be life-saving measures in the type of attack that would ordinarily prove fatal. The frequent improvement in pericarditis, prolongation of the PR interval, and congestive heart failure suggests a beneficial effect on the carditis. Because of the similarity in microscopical architecture of subcutaneous nodules and the rheumatic lesions in the heart, the response of nodules to hormone therapy provides additional indirect evidence that these agents may favorably influence rheumatic carditis. However, the frequency of relapses or rebound phenomena on withdrawal of treatment point to suppression rather than termination of the process. 2. Does ACTH and cortisone therapy shorten the duration of attacks of rheumatic fever? At the present time the evidence is inadequate to provide a definite answer to this question. 3. Does hormone therapy prevent cardiac damage or reduce the amount of heart damage that results from rheumatic fever? The answer to this cannot be definitive at this time and many different studies give widely divergent findings in this

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regard. However, if all factors are considered, there is considerable evidence based on changes in heart size and heart murmurs during hormone therapy and particularly by data regarding the reduction in frequency of significant murmurs following therapy to suggest that the treatment of acute rheumatic fever with adrenal steroids may actually be effective in preventing heart damage.

The frequency with which favorable results are obtained with steroid therapy seems to be related to the duration of carditis at the time these drugs are instituted. As the duration of rheumatic fever before the beginning of therapy increases beyond a week, the frequency with which murmurs disappear decreases rapidly and the proportion of patients observed to be free from murmurs after therapy rapidly becomes smaller. In contrast to the effect of hormonal therapy in acute rheumatic carditis, the response of patients with long standing chronic myocarditis has been disappointing.

The serious untoward effects of these drugs—infection, water and electrolyte derangement, gastrointestinal catastrophes and others—should not be neglected. Although salt restriction is not as urgent with the use of the newer steroids, it is still of considerable import, particularly in the patient with cardiac failure.

The various indications for the use of adrenal steroids in the treatment of rheumatic fever in the hands of different investigators are too numerous and divergent to list. Some think these agents should be routinely used in all cases of rheumatic fever, whereas others think they should never be used. Some workers restrict their use to life-threatening situations while others regard them of benefit only if used within the first two weeks after onset of the rheumatic process. Much of the controversy is due to the lack of uniformity regarding dosage, stage of the disease when therapy is instituted, and duration of therapy. It must be recalled that rheumatic fever is not an accurately predictable disease. Large numbers of carefully selected controls treated in the same manner and at the same time are necessary to even out the individual variations

in the course of this disease. When such controversy exists over the use of a new agent in a particular disease, there must be reservations concerning its true and ultimate value.

General supportive measures are of utmost importance in the management of acute rheumatic carditis. Emotional security and physical comfort should not be neglected. Morphine is the most effective drug in controlling precordial pain and mild sedation may be useful in the restless and apprehensive patient. The time honored routine of bed rest in acute rheumatic fever has not been seriously questioned until recently. Gibson and Fisher in Denver treated a group of patients with rheumatic fever with cortisone until all clinical and laboratory evidence of disease activity had disappeared for one week. These children were permitted full activity as soon as they felt well enough for such activity, which was often within 48 hours of admission. Some of these patients have been followed up to 27 months with an incidence of carditis no higher than that expected with traditional regimes. The series is too small and the duration of follow-up is too short to draw conclusions but such studies will be followed with interest. The impact of such an illness on the family cannot be dismissed.

Administration of oxygen, particularly in the presence of cardiac failure or rheumatic pneumonitis, is indicated. Although the use of digitalis is often thought to be contraindicated in the presence of acute rheumatic myocarditis, most clinicians employ it as well as diuretics, sodium restriction and other measures in the presence of frank congestive heart failure due to the rheumatic process.

There is general agreement that protection against infections with the Group A streptococcus is one of the major concerns in the total management of the patient with rheumatic fever. Severe cardiac damage is usually a result of repeated rheumatic relapses and these recurrences are in most cases associated with streptococcal infections. The treatment of the preceding streptococcal infection and protection of the patient who has had a previous attack of rheu-

matic fever against streptococcal infections has been discussed previously. Since the recurrence rate in patients who have experienced an attack of rheumatic fever is, on exposure to the streptococcus, 10 to 20 times greater than the initial attack rate, adequate antibacterial prophylaxis against the streptococcus cannot be overemphasized. In three British studies in 1939 and 1940, before the widespread use of antimicrobial drugs, hemolytic streptococci were cultured from the heart valves in a high percentage of patients dying with rheumatic fever. These studies as well as the role of the streptococcus in the initiation and development of acute rheumatic fever suggests the possibility that the elimination of this organism at the time that the signs of rheumatic activity are manifested might alter either the acute phase symptoms or the incidence of valvular heart disease or both. Accordingly Rammelkamp and co-workers undertook a study in Chile in which massive doses of penicillin were employed to eliminate the streptococcus from patients with acute rheumatic fever. Their results demonstrated no significant differences between the two

groups in symptomatology, laboratory phenomena, or cardiac manifestation during the first six weeks. However, at the end of one year a difference of probable statistical significance was noted in the incidence of organic murmurs in those patients without advanced valvular heart disease on admission who had been treated with penicillin as compared to controls. This study is being continued and the results from a larger series will be awaited with great interest.

Space does not permit a discussion of the subsiding, convalescent, and chronic phases of rheumatic heart disease. However, the management of the patient during these stages is just as important as during the acute phase. No attempt will be made to cover in detail the extensive and interesting aspects concerned with surgical attack on chronic rheumatic heart disease. However, at the present time open cardiectomy utilizing extracorporeal circulation has been used to advantage in the treatment of selected cases of mitral stenosis, mitral regurgitation, aortic stenosis and aortic regurgitation.

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Clinical Aspects of

MAGNESIUM METABOLISM

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Knowledge of the role of magnesium in human physiology is incomplete, but several vital functions of this ion have been established. Many of the intracellular enzymatic reactions in the intermediary metabolism of glucose depend upon magnesium as a co-factor, examples of which are the conversion of glucose-1-phosphate to glucose-6-phosphate and the decarboxylation of pyruvic acid.¹ The extracellular concentration of magnesium may be of considerable importance in muscle function. Magnesium has a sedative action at the neuromuscular junction by a blocking of acetylcholine release, which effect is antagonized by calcium.²

The normal adult human body contains about 20 gms. of magnesium, 98 per cent of which is within soft tissue cells and bone.³ Striated muscle contains as much as 20 meq/liter of magnesium. The serum magnesium level is variously reported in the literature from 1.21-2.49 meq/L. (range of means), depending on the individual laboratories and the method employed. Obviously each laboratory must establish its own normal values for serum magnesium. Spinal fluid magnesium is generally slightly higher than in serum.⁴ Gastric juice appears to contain about 1.0 meq/liter of magnesium.⁵ Magnesium concentration in bile approximates that of the blood serum.⁴

The daily requirement for magnesium is about 5 mg./Kg of body weight. The aver-

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age-sized person can remain in balance on 220 mg. daily.⁶ Magnesium is provided in the diet largely by leafy green vegetables, meat and milk. Absorption from the intestine is probably regulated by the same factors that govern calcium absorption. The great majority of ingested magnesium is ordinarily excreted in the feces; only a small percentage is recoverable in the urine. Renal tubular reabsorption of magnesium oc-

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curs to a high degree, probably approaching that of calcium. Whether the tubules can also excrete the cation has not yet been established, despite several attempts to solve this question.^{7,8} As with calcium, there appears to be secretion of magnesium into digestive juices forming a "gut pool," and the small bowel contents seem to be rather rich in magnesium.

The controlling mechanisms for the usual serum cations have been demonstrated; but little is known concerning the regulators of magnesium metabolism. Recent evidence strongly suggests that the parathyroid gland is instrumental in this regard.⁹

A portion of the serum magnesium is bound to serum proteins. This appears to be about 20-30 per cent as compared to 50 per cent for calcium.¹⁰ Evidence is accumulating that there is competition between calcium and magnesium for binding by the protein moieties.¹¹

Twenty-six years ago Kruse, Orent and McCollum showed that rats deprived of dietary magnesium manifested hyper-irritability followed by convulsions and death.¹² Concurrently other workers established that "grass staggers" in cattle was due to magnesium deficiency.¹³ Two years later Hirshfelder reported a group of patients with low serum magnesium and symptoms of twitching and convulsions.¹⁴ These patients had renal disease or epilepsy. Several case reports also appeared in the literature linking hypomagnesemia to tetany in patients with severe diarrhea.¹⁵ However, since some observers noted low serum magnesium values in patients without symptoms, symptomatic magnesium deficiency in man was not universally accepted.

Four years ago Fink and associates reported a well-documented series of patients with delirium tremens who showed low serum concentrations of magnesium.¹⁶ Following intramuscular magnesium sulfate therapy, the symptoms of tremor and hallucinations cleared rapidly with a concurrent rise in serum magnesium. These observers also reported twitching, athetoid movements, and hallucinations associated with a low serum magnesium in patients with massive fluid loss, receiving no magnesium in the

replacement solutions. These observations have been amply confirmed.^{17,18} McCollister, Flink and Doe have recently reported evidence for total body depletion of magnesium in patients with delirium tremens.¹⁹

The magnesium deficiency syndrome has also been observed in patients with chronic renal disease prior to the development of azotemia,²⁰ patients with osteolytic disease and hypercalcemia,²¹ patients with hypoparathyroidism,⁹ and patients undergoing marked diuresis induced by mercurial diuretics.²² Hypomagnesemia has been reported in some cases of idiopathic epilepsy.

Treatment of magnesium deficiency at present consists of parenteral replacement with magnesium sulfate. We think that absorption of magnesium sulfate given orally is inadequate for replacement. The intramuscular route is commonly used and initially 8.0 gms. are given daily in four divided doses. After 48 hours the dosage may be decreased to 4.0 gms. daily. Obviously, therapy must be given until the deficiency is corrected, and maintenance levels must be provided if loss continues. The therapy should not be used in anuric patients and with great caution in oliguria or uremia. We feel it would be wise to add magnesium sulfate to sustaining fluid solutions in patients with deficient oral intake. Daily requirement could be met by 1.0 gm. daily.

Deleterious effects of excessive magnesium have been reported in only one circumstance, uremia. Hirshfelder reported several cases of coma and death in patients with uremia given frequent doses of magnesium sulfate as a cathartic.²³ We have noted high serum magnesium levels in patients with chronic renal disease, nitrogen retention and central nervous system depression.²⁰ Similar findings have also been reported in patients with acute renal failure.²⁴ Excessive magnesium administration to animals results in depression, coma and death.

In summary, magnesium is important in biochemical functions of man, particularly intracellular magnesium. A body deficit of magnesium produces a clinical syndrome of mental clouding, confusion, disorientation, hallucinations, tremor, athetoid movements and occasionally actual convulsions. Deep

tendon reflexes are generally hyperactive and a cardiac arrhythmia (ventricular irritability) has been noted. This syndrome has now been observed in delirium tremens, massive fluid loss, chronic renal disease prior to the development of azotemia, hypercalcemia and hypoparathyroidism. Treatment consists of parenteral magnesium replacement. Hypermagnesemia has been observed in patients with uremia, where it is believed to have a role in the central nervous system depression. Artificial dialysis may be indicated when hypermagnesemia is noted in patients with reversible kidney lesions.

It appears that with the development of better methods of determination and an increased awareness on the part of physicians in regard to this cation, magnesium will take its place beside sodium and potassium in clinical medicine.

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The Functioning Carcinoid Syndrome*

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The bizarre manifestations produced by metastatic malignant carcinoids have provoked wide interest in the clinical and biochemical aspects of this disease. Approximately sixty clinical reports describing the functioning carcinoid syndrome have recently appeared in the medical literature. The syndrome is usually characterized by reddish purple flushing of the skin, frequent watery stools, asthmatic attacks, acquired tricuspid and pulmonic valvular lesions and occasional sclerosis of the endocardium of the right atrium and right ventricle.^{1-11, 16, 29, 44} More important than the collection of these unusual cases, has been the impetus this condition has lent to the study of the physiological effects of 5-hydroxytryptamine in the normal and in pathological states.¹⁰⁻¹³ It is the purpose of this report to add three new cases to those previously reported and to review the biochemical and physiological manifestations of the syndrome.

Case Reports

Case I. A 48 year old white man was admitted to the University Hospitals on November 27, 1956. Abdominal distention, cramping, and watery diarrhea had had its onset in 1953. Subsequently the patient developed episodic facial flushing, dyspnea and weakness. During one episode of cyanosis a clinical diagnosis of myocardial infarction had been made. Progressive weakness, dyspnea, pedal edema and a 35 pound weight loss incapacitated the patient. At the time of hospital admission the nature of his illness remained obscure. On admission the patient's temperature was 99 degrees, blood pressure 100/60, pulse 100, and respirations 22. He appeared emaciated and chronically ill. There was marked erythema and telangiectasia over the malar regions. The tongue was smooth, shiny red, and there was marked hyper-resonance of the thoracic

cage. The heart was not enlarged to clinical examination. A harsh systolic murmur, which was accentuated by deep inspiration, was heard over the lower sternal border. The liver was felt 8 cm. below the right costal margin and its surface was studded with nodules estimated as being three to four cm. in diameter. Hepatic compression produced a peculiar reddish purple flushing of the face, neck and upper chest. A moderate amount of ascites and pedal edema were present. A flexion contracture of the left knee was also noted.

Laboratory Data: The significant laboratory determinations are included in Table 1. These were remarkable only in the demonstration of a moderate anemia and significant hypoproteinemia. Abnormal amounts of 5-hydroxyindoleacetic acid were found in the urine. Other studies including urinalysis, lupus preparations, and stool examinations for blood, ova and parasites were normal. Bleeding and coagulation time were within the normal range. The venous pressure was 96 mm. of water and the vital capacity was 3.4 liters.

A chest x-ray demonstrated hyperaeration of the lungs and the heart shadow was at the upper limits of normal in size. No specific cardiac chamber enlargement was demonstrable by fluoroscopy. Upper gastro-intestinal and small bowel x-rays indicated no abnormality of the esophagus and stomach but a diverticulum was found in the second portion of the duodenum and there were multiple diverticula of the jejunum. A slight amount of small intestinal segmentation was demonstrated. No intrinsic small intestinal lesion was seen. A barium enema was unremarkable except for slight spastic segmentation. Electrocardiography demonstrated a PR interval of 0.22 seconds, small QRS complexes in the precordial leads and early T-wave inversion in lead V4-6.

Intercostal hepatic needle aspiration biopsy revealed irregular nests of neoplastic cells with some attempt at glandular formation. The cells possessed uniform nuclei

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Table 1
LABORATORY DETERMINATIONS

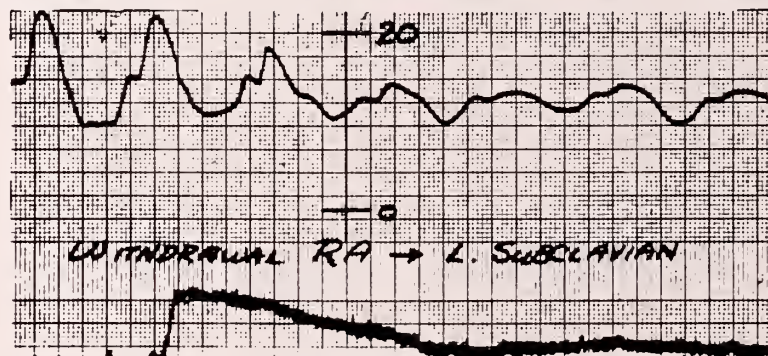
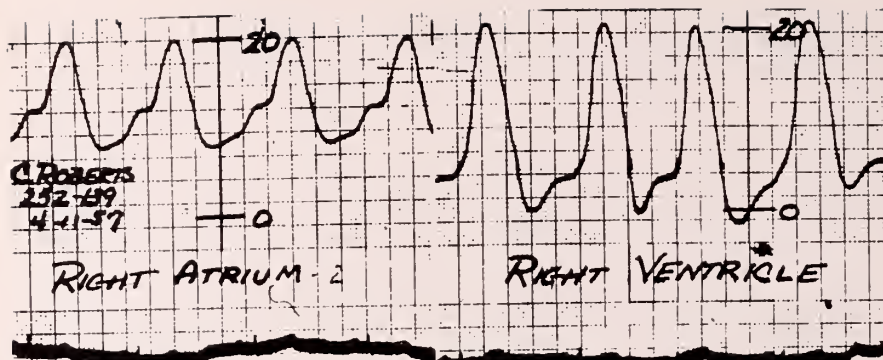
Determination	Case I	Case II	Case III
Hemoglobin	9.9	13.2	15
Hematocrit	33	39	49
WBC	6,650	4,950	5,300
Platelets	320,000	216,000	—
Albumin	2.8	3.8	3.7
Globulin	1.8	2.14	2.6
Total Bilirubin	0.14	1.72	—
Direct	0.0	1.00	—
Indirect	0.14	.72	—
Cephalin Flocculation	0/0	0/0	0/0
Thymol Turbidity	0.6	0.6	1.0
BSP	9%	24%	2%
Alkaline Phosphatase	2.28	3.2	4.0
Prothrombin Patient/Control	14.5/16	21/13	16/15
Cholesterol	144	124	—
Cholesterol Esters	42%	53%	—
Chloride	99	114	—
CO ₂ Combining Power	26	22.4	—
Sodium	135	135	—
Potassium	4.9	5.2	—
Calcium	8.1	—	—
Phosphorus	4.8	—	—
Urinary 5-Hydroxyindoleacetic Acid	+	+	+

with scanty cytoplasm. This was felt to be a carcinoid tumor by the examining pathologist, Doctor Walter Joel.

Therapy consisted of a high protein, high caloric diet fortified with large amounts of B complex vitamins and transfusions of whole blood and plasma. Digitalis and diuretics were instituted for treatment of congestive heart failure. Prior to liver biopsy some 3500 cc. of cloudy brown fluid was removed from the abdomen by paracentesis. Despite these measures the patient's condition deteriorated. He was discharged from the hospital for terminal care elsewhere and was lost to follow-up.

Case II. A 64 year old white man was hospitalized at the University Hospitals on April 2, 1957. During the preceding seven year period the patient had experienced abdominal cramping, 10-12 watery stools per day, episodic facial flushing and a 52 pound

weight loss. Because of marked facial flushing, cyanosis, and tachycardia, an earlier dental extraction had been discontinued. Examination revealed a temperature of 98.6 degrees, pulse 72, blood pressure 120/70 and respirations 24. There was marked erythema and telangiectasia of the face, neck and upper chest. The neck veins were distended and pulsatile. Examination of the lungs demonstrated hyperresonance and diminished breath sounds. There was no clinical evidence of cardiomegaly. A loud harsh systolic murmur without significant transmission was heard in the fourth intercostal space at the left sternal margin. The liver was grossly nodular, pulsatile and extended below the iliac crest. An ill defined grapefruit sized mass was present in the right lower quadrant. Compression of either the liver or the abdominal mass accentuated the flushing of the face and neck.



HEART CHAMBER	OXYGEN % SATURATION	PRESSURE, MM. MERCURY
RIGHT ATRIUM	54.3	20/8
RIGHT VENTRICLE	56.3	21/4,0
FEMORAL ARTERY	98.0	---

Figure 1. Cardiac catheterization findings. The upper left figure represents right atrial pressure tracings. The presence of an elevated diastolic pressure and a large systolic wave is characteristic of tricuspid insufficiency. A persistent diastolic pressure gradient between the right atrium and the right ventricle, right upper figure, indicates tricuspid stenosis. The middle tracing is a recording of withdrawal from the right atrium into the superior vena cava and left subclavian vein. The lower chart is one of oxygen saturation and pressure recordings in the right heart.

Laboratory Data: The determinations recorded in Table 1 demonstrated slight bilirubin and bromsulfalein retention. The prolonged prothrombin time noted was reversible by administration of vitamin K. Other coagulation studies, including bleeding time, Lee-White coagulation time, and clot retraction time were normal. The differential blood count, urinalysis, uric acid, and acid phosphatase were unremarkable. Pathological amounts of 5-hydroxyindoleacetate acid were found on several urine determinations.

Diminished amplitude of the QRS complexes was seen on the electrocardiogram. Prominent P waves in the limb leads sug-

gested atrial hypertrophy. Chest x-ray revealed moderate hyperaeration of the lungs and perihilar congestion. The heart was moderately enlarged with a prominent left ventricular contour. The aorta was elongated and calcification was present in the aortic knob. Upper gastrointestinal and small bowel x-rays outlined a normal appearing esophagus, stomach and duodenal bulb. A large diverticulum was present in the third portion of the duodenum. There were multiple diverticula of the jejunum and ileum. A barium enema demonstrated several diverticula of the sigmoid and spacy of the cecum.

An aspiration needle biopsy of the liver was performed through an intercostal approach without incident. The pathological specimen was considered compatible with carcinoid metastatic to the liver.

In order to better study the cardiovascular abnormalities associated with the functioning carcinoid syndrome and because of the clinical evidence of tricuspid insufficiency, cardiac catheterization was performed. Due to technical difficulties the catheter could not be passed into the pulmonary artery. The pressure and oxygen saturation results are reported in Figure 1. The right ventricular pressures were normal. The absence of elevated pressures in the right ventricle was felt to exclude significant pulmonary stenosis at the time of the examination.⁴⁵ Right atrial pressure curves revealed a large systolic wave to be present. There was likewise elevation of the right atrial diastolic pres-

sure. These two findings were considered characteristic of tricuspid insufficiency.⁴⁶ The presence of a significant pressure gradient throughout diastole between the right atrium and the right ventricle was indicative of a significant degree of tricuspid stenosis.⁴⁷ The absence of any increase in oxygen saturation in the right atrium and right ventricle excluded a left to right intracardiac shunt. The catheterization findings were felt to indicate the presence of tricuspid stenosis and tricuspid insufficiency.

An exploratory laparotomy was performed on April 24, 1957. Upon opening of the abdominal wall the posterior rectus sheath was thickened with dense fibrous tissue. Marked intestinal motor hyperactivity was observed throughout the operation. A constricting carcinoid of the terminal ileum was resected. Disseminated peritoneal, mesenteric, and hepatic metastasis precluded additional resection. The postoperative course was complicated by intra-abdominal bleeding which necessitated ligation of a bleeding site on the liver.

For one month following operation, the patient experienced a transitory decrease in severity of the diarrhea. Progressive weight loss, diarrhea, weakness and cardiac decompensation prompted three subsequent hospital admissions. Dietary manipulations, digitalis and diuretics were without notable therapeutic effect. A trial of benzyl analogue of serotonin (1-Benzyl-5-dimethylserotonin hydrochloride) in doses of 100 mgs per day and promazine 200 mgs per day produced only minimal symptomatic relief. Side effects, predominantly lethargy, hypotension and drowsiness, necessitated discontinuance of these drugs. These therapeutic measures were unavailing and the patient expired on September 9, 1957.

At post mortem examination, both pleural cavities contained 700-800 cubic cm. of clear yellow serous fluid. The lungs demonstrated moderate hyperaeration with slight bilateral basilar atelectasis. The pericardium contained 100 cubic cm. of serous fluid. The heart weighed 360 gms. The right ventricle measured 0.5 cm. in thickness and the left ventricle measured 1.3 cm. in thickness. The tricuspid and pulmonary valves were thick-

ened and their cusps fused. They measured 11 cm. and 5.5 cm. in circumference respectively. There was moderate contraction of the pulmonary outflow tract. The endocardial surface of the right atrium was thickened. A lesser degree of endocardial thickening was present in the right ventricle. There was marked coronary atherosclerosis without evidence of coronary occlusion. Upon opening the peritoneal cavity 300 cubic cm. of clear amber fluid was found. Numerous adhesions were seen throughout. The liver was markedly enlarged and appeared studded with nodules. These were umbilicated and reddish yellow in color and many were filled with hemorrhagic fluid. Their size varied from 3 to 7 cm. in diameter. Large matted lymph nodes were found throughout the mesentery and about the arterial system. Several yellowish nodules were present in the rectovesical pouch. The anastomotic site presented no evidence of recurrence.

Microscopic section of the liver revealed extensive areas of metastatic involvement by sheets, cords and nests of uniform neoplastic cells. These had deeply staining basophilic nuclei and scanty cytoplasm. Some pseudo-rosette formation was noted. The neoplastic cell nests were separated by fibrous trabeculae. The argentaffine reaction was demonstrated in these specimens. A similar microscopic picture was evident in the remainder of the metastases. A typical microscopic section is demonstrated in Figure 2. In the heart marked endocardial fibrosis and fibroblastic proliferation was noted in the right atrium and right ventricle.

Case III. A 42 year old white man was admitted to the Oklahoma City Veterans Administration Hospital in May, 1957. For three years preceding hospitalization the patient had experienced episodic dyspnea and wheezing. Approximately 18 months preceding this hospital admission, a hemorrhoidectomy had been performed. Following this procedure, borborygmus, cramping abdominal pain, and diarrhea consisting of four to five watery stools per day developed. In 1956, the patient began to experience episodic flushing of the skin of the face and neck with associated pruritus of these areas.

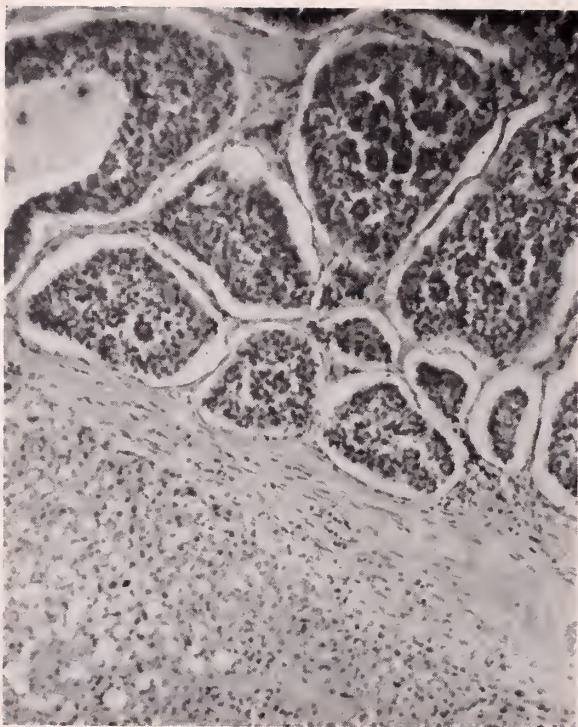


Figure 2. Photomicrograph of hepatic metastases in Patient II. A section of hepatic parenchyma is evident in the lower portion of the section. Above this are nests of neoplastic cells. Some pseudorosette formation is evident. A similar picture was seen in biopsy specimens from the other two patients.

The attacks usually occurred postprandially. A 15 pound weight loss had been incurred during the preceding year. Physical examination revealed a temperature of 98 degrees, pulse 72, respirations 22, and blood pressure 116/60. The patient appeared well nourished and had a persistent reddish purple discoloration of the face, neck and upper chest. Considerable facial telangiectasia was present. The neck veins were slightly distended in the upright position, but did not pulsate. There was a moderate diminution of chest expansion, but examination of lungs was otherwise unremarkable. The heart was not enlarged to clinical examination, but a faint systolic murmur was audible over the manubrium. A smooth liver edge was felt 5 cm. below the right costal margin. No abdominal masses could be felt. Hepatic pressure produced a marked increase in facial flushing. Ascites and pedal edema were absent.

Laboratory Data: The determinations included in Table 1 were essentially unremark-

able, except for the demonstration of increased amounts of urinary 5-hydroxyindoleacetic acid. Other studies including differential blood counts, urinalysis, febrile agglutinations, and serum amylase were normal. Pulmonary function studies demonstrated a normal tidal volume, minute volume, and inspiratory capacity. There was a moderate decrease in expiratory reserve and total vital capacity. The maximum breathing capacity was one-half of the predicted value.

A chest x-ray revealed no pulmonary abnormalities. The heart did not appear enlarged but there was some prominence of the left ventricular contour. Examination of the upper gastro-intestinal tract by x-ray outlined a normal appearing esophagus. The antral gastric mucosal folds were slightly prominent. There was slight prolapse of the gastric mucosa into the duodenal bulb. The small bowel showed a normal position and mucosal pattern but there was a rapid progression of the barium meal which reached the splenic flexure within 30 minutes. After four hours all the barium had reached the large bowel. There was no evidence of an intrinsic mass of the small intestine. Examination of the large intestine by barium enema revealed a small diverticulum of the descending colon. The colon and appendix filled with ease and did not appear abnormal. On post evacuation films some non-specific irregularity of the mucosal pattern of the sigmoid colon was noted. An electrocardiogram was unremarkable.

On June 5, 1957, an exploratory laparotomy was performed. A 2 cm. constricting mass was excised from the terminal ileum. The liver was studded with multiple nodules, varying from 1 to 10 cm. in diameter. The microscopic diagnosis was carcinoid, primary in the ileum, with lymph node and hepatic metastases.

After an uneventful post operative course, the patient chose to be followed at a Veterans Administration Hospital closer to his home but reports he has experienced no change in symptomatology.

Discussion

Since Lubarsch's initial report in 1884¹⁴ and the introduction of the term "carci-

noid," by Oberndorfer¹⁵ in 1907, these tumors have been a source of interest to the pathologist because of their peculiar cell type and unusual staining properties.¹⁶ The synonym, argentaffinoma, is derived from the production of the argentaffine reaction, i.e., blackening of the tumor by ammoniacal silver nitrate.¹⁷ Carcinoids are believed to originate from the Kultschitzky cells of the intestinal epithelium which they resemble in both morphologic and histochemical characteristics.¹⁸ Microscopically the tumors consist of columns and clumps of epithelial cells set in a stroma of muscle and large quantities of elastic tissue.^{19, 20} The tumors usually appear as small submucosal nodules, however, they may be constricting or annular.²¹ Upon gross examination the tumors are most often yellow, but may vary from grayish white to brown. Their characteristic mode of infiltration of the intestinal wall frequently produces kinking of the ileum. This valuable diagnostic sign occasionally may be observed in x-ray examination of the small intestine.²²

Carcinoids may arise from any portion of the gastro-intestinal tract from the gastric cardia to the anus. The incidence in necropsied cases varies from 0.14 per cent to 0.34 per cent in five large series.^{21, 23, 24, 25, 26} The most frequent site of origin is the appendix with the jejuno-ileum as the next most common site.²⁷ Carcinoids of the small intestine are most apt to metastasize while those in the appendix rarely do.²⁸

One of the earliest descriptions of the carcinoid syndrome was presented to the Royal Society of Medicine in London in 1930 by Sir Maurice Cassidy as an example of metastatic carcinoma to the adrenal gland.³⁰ The same author presented a second similar case to the same society four year later.³¹ The clinical descriptions and a color illustration of the first patient's facies leave little doubt that this represented an example of the carcinoid syndrome. The significance of these and other less definite examples was overlooked until 1953. At this time, simultaneous reports by Biorck, Axen, and Thorson¹ and Isler and Hedinger,² aroused a flurry of interest in an unusual syndrome manifested by carcinoids having hepatic metastases. Subsequently, numerous cases

showing the unique features which have been enumerated above were reported. It was Thorson, Biorck, Bjorkman, and Waldenstrom,⁵ however, who first postulated that the clinical manifestations might be due to the production of large amounts of 5-hydroxytryptamine by the tumor.

It had earlier been shown that the Kultschitzky cells of the intestinal mucosa secrete a substance, "Enteramine," important in maintaining gastro-intestinal tonus. A potent vasoconstrictor termed "serotonin," likewise had been isolated. These two substances have been determined to be 5-hydroxytryptamine.^{32, 33} This pharmacodynamic compound has been shown to increase the gastro-intestinal tone and produce hyperperistalsis and diarrhea.³⁴ It causes constriction of the bronchioles, pulmonary arterioles and produces elevation of the pulmonary artery and right ventricular pressure.^{35, 36} 5-hydroxytryptamine also constricts the afferent glomerular arteriole and functions as an antidiuretic.³⁷ Its effect on the peripheral vascular bed is that of dilatation of the small subcutaneous arterioles and constriction of the larger arteries.³⁸ Finally, 5-hydroxytryptamine is thought to play a role in cerebral function, which is to date incompletely understood.³⁹

The metabolic pathway of 5-hydroxytryptamine has been clearly demonstrated by Udenfriend and Titus.⁴⁰ The origin of this compound is dietary tryptophan which is hydroxylated within the tumor or intestinal Kultschitzky cells to 5-hydroxytryptophan. The 5-hydroxytryptophan is then decarboxylated within the tumor or intestinal epithelium to form 5-hydroxytryptamine. This compound is secreted into the portal blood where it is avidly absorbed by the platelets and is transported in an inactive form. Uncombined 5-hydroxytryptamine is converted by monoamine oxidase, present in the lung and liver, to 5-hydroxyindoleacetic acid. This final breakdown product, 5-hydroxyindoleacetic acid, is excreted in the urine.^{11, 41} The 5-hydroxyindoleacetic acid pathway of tryptophan metabolism is outlined in Figure 3. The normal daily excretion of 5-hydroxyindoleacetic acid varies from two to nine mgms per day.⁴² This is markedly increased in the carcinoid syndrome.

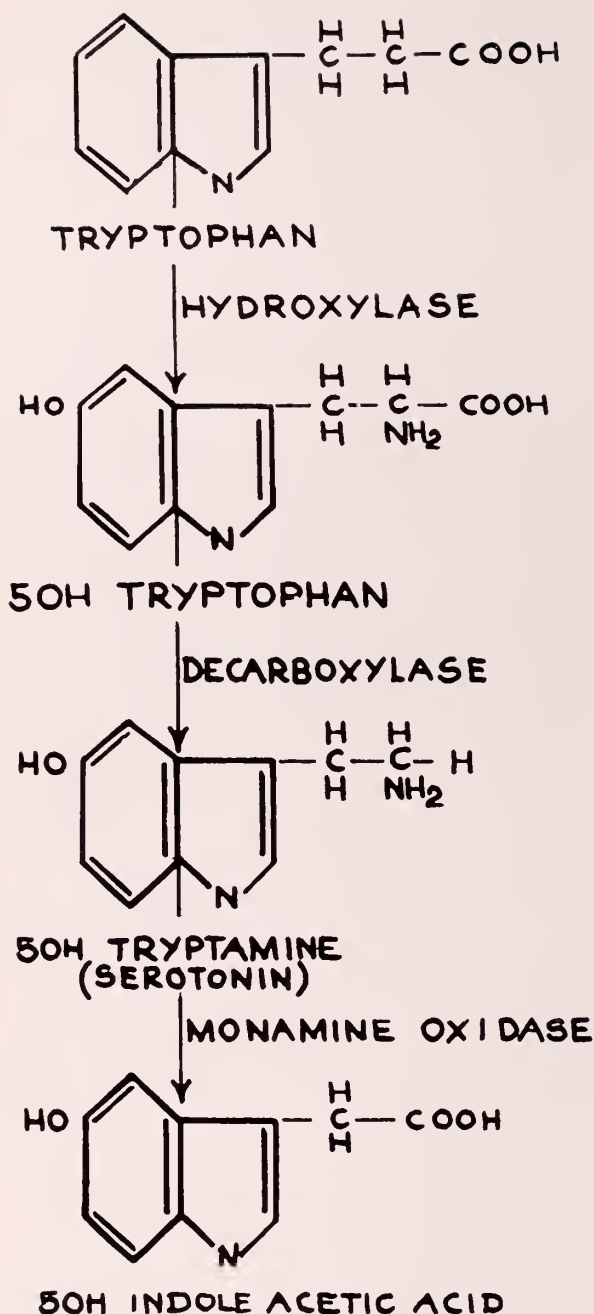


Figure 3. The 5-hydroxyindole pathway of tryptophan metabolism from Sjoerdsma, et al, Amer. J. Med., 33:5, 1957, p. 520.

In the "Carcinoid Syndrome," large quantities of tryptophan, the precursor of 5-hydroxytryptamine, are converted into the previously mentioned anomalous metabolic pathway. As much as sixty per cent of dietary tryptophan has been shown to be diverted into "serotonin" metabolism. This results in a considerably decreased amount of tryptophan available for niacin and pro-

tein formation.¹¹ Tryptophan deficiency occurring in the carcinoid syndrome is frequently manifested by hypoproteinemia and clinical evidences of pellagra.

The three patients described in this report presented the classical findings of the functioning carcinoid syndrome. The evident manifestations are summarized in Table 2. In each instance, the clinical impression was verified by the simple urinary 5-hydroxyindoleacetic acid determination described by Sjoerdsma and colleagues. This test may be performed in any clinical laboratory as follows:

- 0.2 milliliter urine
- 0.8 milliliter water
- 0.5 milliliter 1 nitroso-2 naphthol (0.1% in 95% ethanol)

Mix

- 0.5 milliliter of nitrous acid (freshly prepared by adding 0.2 milliliter of 2.5% sodium nitrate to 5 milliliters of 2N sulfuric acid)

Re-mix

Allow to stand for ten minutes

Shake with 5 milliliters of ethylene dichloride.

A positive test consists of a purple color in the top layer.⁴³ A positive result requires a minimum urinary excretion of 4 milligrams of 5-hydroxyindoleacetic acid per 100 milliliters of urine. To date no false positive reactions have been reported in normal subjects and in various disease states.⁴²

Summary

Three patients with malignant carcinoid tumors metastatic to the liver are presented. The recently described clinical syndrome evidenced by these patients is described and the clinical, laboratory, and cardiac catheterization findings are discussed.

A review of the features of carcinoid tumor and more specifically as the "functioning carcinoid syndrome" is presented. Certain physiological and biochemical aspects of this syndrome are discussed.

Addendum

The author wishes to express his gratitude to Doctor Walter Joel, Department of

Table 2

Clinical Manifestations	Case I	Case II	Case III
Facial Telangiectasia	Present	Present	Present
Flushing Episodes	Present	Present	Present
Diarrhea	Severe	Severe	Moderate
Asthma	None	None	Mild
Heart Murmur	Tricuspid Systolic	Tricuspid Systolic	Basilar Systolic
Hepatomegaly	Yes—palpable nodules	Yes—palpable nodules	Yes
Additional Palpable			
Abdominal Masses	Yes	Yes	None
Primary Site	Unknown	Ileum	Ileum
Hepatic Metastases	Yes—needle biopsy	Yes—needle biopsy and laparotomy	Yes—laparotomy

Pathology, University of Oklahoma School of Medicine, for review of the pathological specimens. The various roentgenograms were interpreted by the members of the Departments of Radiology of the University of Oklahoma Medical Center and the Oklahoma City Veterans Administration Hospital.

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President Cross Addresses Graduating Class

The following is President George L. Cross's Commencement Address to the University of Oklahoma School of Medicine Graduating class of 1958.

Members of the Class of 1958, members of the faculty of the University of Oklahoma School of Medicine, distinguished guests, parents and friends of the University—

Sixty-six years ago in September of 1892, a group of men and women of varying ages presented themselves in Norman as the first student body of the University of Oklahoma. There were 56 members of this beginning class, and they were welcomed by a faculty of four, including the President of the University, Dr. David Ross Boyd. The physical plant of the institution that fall consisted of a single room upstairs in a building on the Main Street of Norman. There were no pre-medical students in this group. As a matter of fact, few if any of the group could qualify for admission at the collegiate level. The first years of the University's existence was concerned primarily with preparatory activities.

Six years later, in 1898, a few courses known as pre-clinical courses were organized unofficially. There were courses in chemistry, toxicology, anatomy, physiology, materia medica and therapeutics. These were taught in the scientific departments of the University and in the School of Phar-

macy. They were the prelude to our School of Medicine.

In 1900 these courses were officially designated by the Regents of the University as a "Pre-clinical Medical School," and a Department of Pathology was added. The campus of the University had begun to take form in its present location, and a one-story wooden building was erected to house the Department of Anatomy. Laboratory space was set aside in Science Hall for pathology and bacteriology. Only the first two years of a full medical course were given. The clinical years had to be taken elsewhere. The first pre-clinical class got underway in September, 1901 with an enrollment of eight students.

In 1904 the Board of Epworth University, located in Oklahoma City, organized a faculty for its College of Medicine, and in 1906 a full four-year course was established with students accepted for all classes.

In 1910 plans were made for a merger of this Medical College with the University of Oklahoma. The merger was accomplished, and the University of Oklahoma acquired a ready-made medical school with a student body of 47. The first degrees were conferred in 1911.

The present location of the Medical School was determined in 1917 when the Oklahoma Legislature appropriated funds for the con-



struction of the University Hospital. Additional Legislative appropriations in 1927 made provision for the Crippled Childrens Hospital and the Medical School Building. With the completion of these structures the Pre-Clinical Departments were moved from Norman to the Oklahoma City campus in 1928.

In the years which have intervened since that time, the School has had its ups and downs, but the end result as of 1958 is a Medical Center in which all Oklahomans can and do take a great deal of pride.

I should like to express appreciation on behalf of the University and personally to the members of the faculty, pre-clinical and clinical, and to the deans, whose loyal devotion and effective service have made this growth possible.

I should like to single out for special attention the many Oklahoma City physicians

who have given so generously of their time and talents in the development of our School of Medicine. Without their great contribution of teaching, research and administration, a program of medical education could not have been developed in Oklahoma.

We have assembled here today to honor the latest products of our School of Medicine. We have planned a special ceremony for this purpose because we want to be sure that each graduate this spring receives the recognition he deserves.

It is a very great pleasure to welcome to these exercises all who will receive degrees and diplomas this afternoon. It is a pleasure also to welcome the parents, families and friends of the graduating group. It is a pleasure to welcome the faculty of the School of Medicine. It is a pleasure to welcome several distinguished guests who have an interest in our medical program.

FACULTY NEWS



Gilbert S. Campbell, Ph.D., Joins VA Hospital Staff

Gilbert S. Campbell, Ph.D., of Minneapolis, Minnesota, has been appointed as Chief of Surgical Service at the Veterans Administration Hospital, Oklahoma City, Oklahoma, and Professor of Surgery at the University of Oklahoma.

Doctor Campbell is a native of Virginia and received M.D. degree from University of Virginia School of Medicine in 1946. He received residency training in Surgery at the University of Minnesota Hospital, Minneapolis, Minnesota, completing his training in February 1954. He is certified by the American Board of Surgery and Board of Thoracic Surgery. He has been Assistant Professor of Surgery at the University of Minnesota since July 1955. He was a consultant in Surgery at the Veterans Administration Hospital, Minneapolis, Minnesota. He has a Ph.D. degree from the University of Minnesota in surgery and minor in physiology. He was granted a Markle Scholarship in 1954.

He is a member of the Society of University Surgeons; American Association for Thoracic Surgery; Sigma XI; American Association for Advancement of Science; and Society of Experimental Biology and Medicine.

Doctor Campbell has served as Medical Officer assigned to Walter Reed Hospital from July 1949 to July 1950, and served in the Far East, Japan, and Korea as Medical Officer in the Army from July 1950 to August 1951. He was separated from the Service in August 1951 as Captain.

Doctor Campbell is interested in cardiopulmonary function and has over 40 publications in relation to problems dealing with ventilation, pulmonary blood flow, and cardiac arrest.

ABSTRACTS

Transplacental Infection of Fetuses of Rabbits with Herpes Simplex Virus

JOSEPH Z. BIEGELEISEN, Jr.* and L. VERNON SCOTT.**

Proc. Soc. Exp. Biol. & Med., 97: 411-412, 1958

In a continuation study of the dissemination of herpes simplex virus after infection of the cornea of the adult rabbit this virus was isolated from the fetuses.

Herpetic lesions were produced on chorioallantoic membranes of developing chick embryos (CAM) which were inoculated with blood specimens removed

at 24 hours and 48 hours after corneal inoculation and at the time the fetuses were surgically removed (54 hours) from the infected animals. Typical herpes simplex virus plaques were noted on CAM which were inoculated with homogenates of fetuses from these animals.

The infectivity for CAM of the viral agent which was isolated from the fetuses was decreased when titrated in the presence of specific immune serum. The agent's infectivity for CAM was not decreased in the presence of buffered gelatin saline. Therefore, the isolated virus was identified as herpes simplex.

*Graduate Student, Department of Microbiology.

**Associate Professor of Microbiology.

Castration, Thyroidectomy and Parabiosis in Rats with Particular Reference to the Pituitary Basophil Cells and Their Hormone Products

LAURENCE G. GUMBRECK.*

Am. Jour. Anat. 101: 321-365, 1957

The primary object of this study was to determine the hormonal output of the pituitary gland of the male rat when it was altered by castration, thyroidectomy or both operations combined. These operations caused an increase in the pituitary basophil cells and a decrease in the acidophil cells. The male rats operated on were united in parabiosis with a normal female rat (surgical siamese twins). Such twins develop a circulatory connection of capillary vessels, so that hormones and other blood-borne products from one twin or partner will circulate in the other.

The target organs of the hormones produced by the pituitary basophil cells were examined quantitatively in the normal female partners. When the male partner was thyroidectomized the thyroids of the female, but not the ovaries, were stimulated. When the male was castrated the ovaries of the female were stimulated and the thyroids were first stimulated and then depressed. When the male was subjected to both operations the ovaries and the thyroids were stimulated, but the thyroids were stimulated to a greater degree than when the male was only thyroidectomized.

From these results and certain others the following conclusions have been drawn. Castration caused a marked increase in the output of follicle-stimulating hormone and a decrease in the release of thyrotrophic hormone. Thyroidectomy caused an increase in the output of thyrotrophic hormone but had no appreciable effect on follicle-stimulating hormone. Neither castration nor thyroidectomy appeared to increase the release of luteinizing hormone. Also, when the male partner was castrated, with or without thyroidectomy, the thyroids of the female were altered as a result of the increased estrogen production of her stimulated ovaries. These changes indicated first an increase followed by a decrease in thyroid activity.

Secondary objects of the study were to determine the quantitative effects of castration, thyroidectomy and both operations combined in the male rat and those of parabiotic union of a normal male and female rat, since these animals served as controls. In these animals and all others the following quantitative data were obtained: body weight, weights of endocrine glands, accessory sex organs, thymus, kidneys and spleen, cell height index of thyroids, percentage of all types in the anterior lobe of the pituitary, hemoglobin content of blood, and blood pressure. It should be noted that blood pressure was not appreciably altered by either castration, thyroidectomy or parabiosis.

*Assistant Professor of Anatomy, formerly Research Associate in Surgery, Washington University School of Medicine, St. Louis.

Waldenstrom's Macroglobulinemia Clinical and Pathological Report of a Case Resembling Multiple Myeloma

JAMES W. HAMPTON.*

New England J. of Med., 258: 1293, June 26, 1958

In 1944 Waldenstrom described a clinical syndrome characterized by a hemorrhagic diathesis, leukopenia and the presence of an abnormal protein of large molecular weight. This report concerns a patient who showed all the classic features of the syndrome. The patient presented a picture of progressive pancytopenia, hyperglobulinemia and a hemorrhagic disorder. The fact that a heavy, white flocculum formed when a drop of the patient's serum was added to distilled water prompted an analysis of the serum by ultracentrifugation. Twenty per cent of the total protein was shown to be a macroglobulin with Svedberg constant of 19. The total illness of the patient was eight months, and death resulted from a massive intracranial hemorrhage.

*Resident, Department of Medicine, University of Oklahoma and VA Hospital.

Chlorpromazine Jaundice: The Effect of Continued Chlorpromazine Ingestion in The Presence of Chlorpromazine Jaundice

E. M. SCHNEIDER,* C. DAUGHERTY,** and J. K. DeVORE***

South. M. J., 51: 287-291 (March) 1958

It has been estimated that jaundice occurs in approximately 1% of all patients receiving chlorpromazine. This jaundice has the character of an intrahepatic obstructive lesion. Treatment is largely empirical, but it is generally accepted that, when jaundice appears, the drug must be withdrawn. The present report is based on a study of four patients in whom the administration of chlorpromazine was continued without change after the appearance of jaundice. All four patients were inmates of a state mental hospital; three were women and one a man. All four patients had been receiving chlorpromazine in dosages of 150 to 200 mg. per day for 25 to 39 days prior to the appearance of jaundice. In each instance, chlorpromazine was continued without change in dosage until all clinical and laboratory evidence of jaundice had disappeared. On three of the four subjects, laboratory studies and biopsies of the liver specimens were obtained within three to five days of the appearance of jaundice. In patient two there was a 12-day interval between the onset of icterus and the initial laboratory study. An attempt at liver biopsy on this patient was unsuccessful. A second series of liver function tests was obtained on all patients 10 to 21 days after the initial observations. A third battery of hepatic function tests, together with

liver biopsies on all subjects except patient two, was performed 42 to 68 days later and was the final study on subjects two, three and four. Patient one was subjected to one additional series of liver function tests 151 days after the onset of jaundice.

Elevations of serum alkaline phosphatase and serum bilirubin levels were noted in all subjects initially. The bilirubin levels tended to return to normal somewhat earlier than did the alkaline phosphatase levels. In all patients serum lipid phosphorus determinations were higher during jaundice than after recovery. Liver biopsies were available on three of the four subjects during and again after clearing of jaundice. Bile canicular plugging and periportal infiltration were noted in two subjects on the first biopsy but were normal on repeat examination. The third subject showed only some fatty change in both biopsies. In the present group of patients chlorpromazine therapy was continued with impunity after the appearance of chlorpromazine jaundice. The possibility of chlorpromazine inducing changes in bile viscosity or composition and in biliary sphincter tone was neither supported nor refuted by this study. However, the available data do cast doubt on the likelihood of chlorpromazine jaundice being due to hepatotoxicity or chlorpromazine sensitivity or to existing hepatic disease.

*Former Assistant Chief, Medical Service, VA Hospital, Oklahoma City.

**Psychiatrist, Western State Hospital, Fort Supply, Oklahoma.

***Clinical Assistant in Medicine, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

Review of Cases of Nontuberculous Disease Originally Diagnosed Pulmonary Tuberculosis

RICHARD M. BURKE* and JAMES A. WIER.**

American Review of Tuberculosis and Pulmonary Disease, 75: 921-937, 1957

Over a three year period 608 (18%) of the patients admitted to the tuberculosis section of Fitzsimons Army Hospital were found not to have tuberculosis. Ten conditions composed 77% of the total lung disorders encountered. They were, in order of frequency: pulmonary fibrosis, pneumonia, bronchiectasis, histoplasmosis, coccidioidomycosis, pleurisy, malignancy, sarcoidosis, granuloma (etiology undetermined) and lung abscess. The great importance of the tuberculin test and sputum culture is emphasized. Forty per cent of the patients were tuberculin negative and 12% had "false" sputum reports. The need for prompt biopsy in obscure lung lesions is stressed.

*Assistant Professor of Medicine.

**Colonel, Medical Corp, Fitzsimons Army Hospital, Denver, Colorado.

Trends in the Treatment of Tuberculosis

RICHARD M. BURKE.*

Southern Medical Journal, 49: 725-730, 1956

The introduction of antimicrobials in the treatment of tuberculosis has brought many changes. Older measures are being discarded or modified as an increasing dependence is placed on drugs.

The present treatment of active tuberculosis centers around long-term continuous drug therapy. Surgical removal of significant residua when feasible is favored. However, a growing confidence in drug therapy is leading to fewer restrictions for small residual lung foci. The management of the patient is best handled in a hospital where a sheltered supervised environment is provided. After stability of the lesion has been achieved, home care can be substituted. Prolonged bed rest is assuming a minor role.

*Assistant Professor of Medicine.

Gastric Secretion as Influenced by Rauwolfia Alkaloids

EDWARD M. SCHNEIDER,* and MERVIN L. CLARK.**

Annals of Internal Medicine, 47: 640, October 1957

Rauwolfia and its various alkaloids have been recommended in the treatment of gastrointestinal syndromes because of their tranquilizing effects, but their stimulating effects on gastric secretion made it difficult to determine the indications for their use.

In this study various Rauwolfia Alkaloids were studied in reference to their effects on gastric secretion. Intravenously, 1 mg. of reserpine evokes a significant and prolonged hyperchlorhydria. This response was not blocked by atropine, methantheline bromide, epinephrine or vagotomy. Oral doses of Rauwolfia Alkaloids induced gastric hypersecretion when given in large (2.5 mg.) single doses, but smaller doses did not influence gastric secretion. When Rauwolfia serpentina (200 mg./day) or reserpine (1 mg./day) was given orally over 14-day periods, no significant alteration in gastric secretion or uropepsin excretion occurred.

Rauwolfia serpentina and phenobarbital were found to have no greater value therapeutically in patients with duodenal ulcer or functional gastrointestinal disease than did an inert placebo.

Although no proof of their being ulcerogenic exists, it would seem prudent to use large doses of the Rauwolfia alkaloids with caution, especially in patients with peptic ulcer disease.

*Former Assistant Chief, Medical Service, VA Hospital, Oklahoma City.

**Chief of Medicine, Central State Hospital, Norman, Oklahoma, and Assistant Professor of Medicine, University of Oklahoma School of Medicine, Oklahoma City.

Isolation of Herpes Simplex Virus From the Blood of Rabbits

JOSEPH Z. BIEGELEISEN,* LEE H. RILEY, Jr.** and L. VERNON SCOTT,***

Virology, 4: 132-133, 1957

Herpes simplex virus may be disseminated from the initial foci of infection in the adult rabbit to other organs by the blood.

Typical herpetic lesions were observed on chorioallantoic membranes of embryonated hen's eggs (CAM) which were inoculated with blood specimens from ten rabbits which were infected on the cornea with herpes simplex virus. The virus was isolated from these specimens as early as 24 hours and as long as 132 hours after the experimental inoculation of the animals. That an infection had been established on the virus inoculated eyes was shown by the demonstration of herpetic lesions on CAM which had been inoculated with ocular washings from the infected eyes. No herpetic lesions were observed on CAM which had been inoculated with blood specimens from uninfected animals or with ocular washings from uninfected eyes.

Homogenates of brain, heart, heart's blood, kidney, liver, lungs and spleen from six of these animals which died with herpetic encephalitis produced lesions on CAM.

The infectivity for CAM of the isolated agent from the blood of the rabbits was decreased in the presence of specific immune serum, thus it was identified as herpes simplex virus.

*Graduate student, Department of Microbiology.

**Resident in Surgery, the Johns Hopkins University School of Medicine, Baltimore, Md.

***Associate Professor of Microbiology.

The Growth of Sensitive and Resistant Strains of *Micrococcus pyogenes* in the Presence of Varying Concentrations of Chloramphenicol

H. H. RAMSEY.*

Antibiotics and Chemotherapy 8: 250-254 (1958)

Concentrations of chloramphenicol less than that required for complete inhibition of growth appear to have a greater effect on a resistant organism than on a sensitive strain. This effect is expressed as a lengthening of the initial stationary phase of growth, a decreased growth rate in the exponential phase, and a reduced total growth.

*Associate Professor of Microbiology.

Identification of Skeletal Remains

ALICE M. BRUES.*

J. Criminal Law, Criminology and Police Science, 48: 551-563, 1958

This paper is designed to acquaint the working law enforcement officer with the type of information which can be gleaned from skeletal remains, and the certainty with which conclusions can be drawn. Cautions to be observed in handling the material are discussed, and the suggestions are made as to the most useful procedures in handling the anthropological investigation as a part of the total investigation.

Specific topics discussed are (1) determination of the time and cause of death (outside the strict limits of the anthropologist's field) (2) interpretation of the condition in which the remains are found (3) identification of the species as human (4) estimation of age (5) determination of sex (6) estimation of stature (7) diagnosis of race and (8) identification of individual features.

*Associate Professor of Anatomy.

Treating Tuberculosis in a Military Hospital

RICHARD M. BURKE* and JAMES A. WIER.**

United States Armed Forces Medical Journal, 8: 963-971, 1957

This paper reports the experiences of a large tuberculosis service in treating three groups of patients: military, veterans, and civilian dependents. The military were young men with recent disease. Irregular discharges were insignificant because of army disciplinary powers. This is a sharp contrast to the VA patients with an irregular discharge rate of 30%. The civilian dependent irregular discharge rate was 8%.

In 1954, 50% of the military treated to maximum hospital benefits had pulmonary resection. Since then, operation has been employed less frequently. After three years of active duty, the relapse rate has been only 3%. The present program in operation since 1951 puts the service man back on duty in a relatively short time, he is no longer separated from service and pensioned for life.

*Assistant Professor of Medicine.

**Colonel, Medical Corp, Fitzsimons General Hospital, Denver, Colorado.

PRESIDENT'S LETTER



September is a month that is of special significance to most of us. Vacations are over and the summer is rapidly drawing to a close. For our junior citizens it marks the beginning of a new school year, and for the average doctor it means several things—more concentrated effort in the practice of medicine, more medical meetings, and the often overlooked opportunities in medical education.

It is extremely easy to follow the lines of least resistance and plod along day after day depending on our basic medical training, supplemented only by the periodic visits of a pharmaceutical representative. But such a course will not for long give the patient the full measure of professional care to which he is entitled. Fortunately there are only a few who follow such a superficial program.

The need for continuous and progressive medical education is endless and has no regard for long hours and hard work. If we are to keep abreast of today's rapid progress in medicine, it is mandatory that some time be set aside every year to return to the classroom.

During the next nine months, there will be numerous courses of study offered in our leading medical centers, many within easy distance. Already our own University of Oklahoma Medical School has some eighteen separate courses to offer, totalling almost two hundred hours.

This is the month to plan your postgraduate medical education for the year. Plan it carefully and positively.

A handwritten signature in dark ink, reading "E. C. Mohler, M.D." with a stylized flourish at the end.

P r e s i d e n t

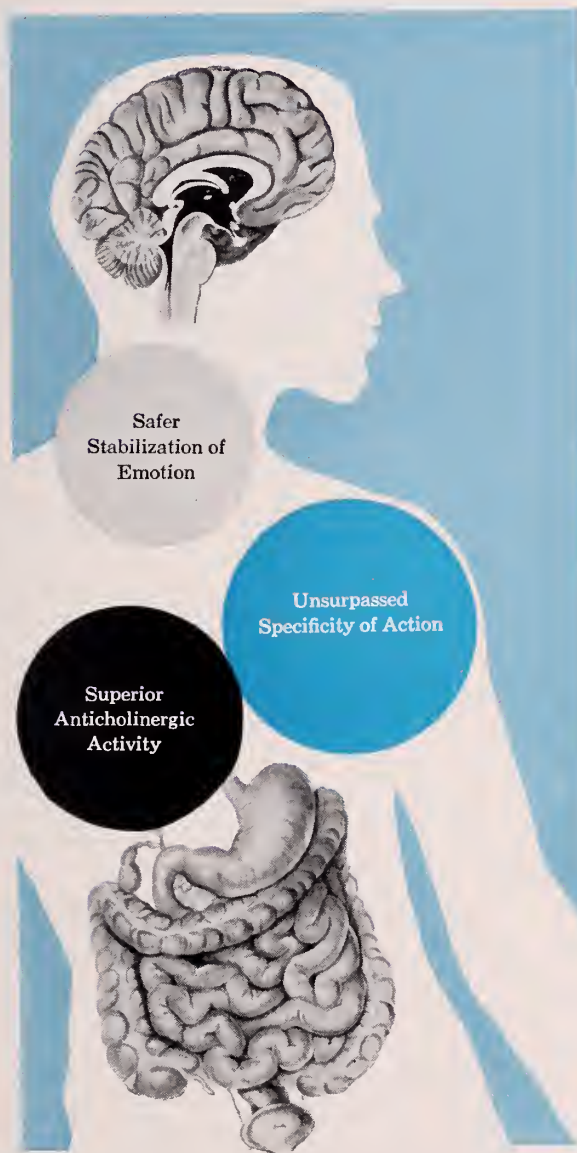
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Medical News

Date Set For Fall Clinical Symposium in Tulsa

Seven nationally known medical personalities will appear as visiting guest speakers at a Fall Clinical Symposium on Thursday, October 9, 1958, at Hotel Tulsa, Tulsa, Oklahoma.

Jointly sponsored by the Tulsa Academy of General Practice, the Tulsa County Medical Society and Lederle Laboratories, the one-day postgraduate study event will feature presentations by the following physicians: Jackson A. Smith, M.D., Professor of Psychiatry and Neurology, University of Nebraska College of Medicine, Omaha Nebraska; Alfred B. Longacre, M.D., Assistant Professor of Surgery, Louisiana State University School of Medicine, New Orleans, Louisiana; Edward M. Litin, M.D., Associate Professor of Pediatrics, The Mayo Clinic Foundation, Rochester, Minnesota; Frank C. Wheelock, Jr., M.D., Assistant Professor of Surgery, Harvard University Medical School, Boston, Massachusetts; Edmund L. DuBois, M.D., Assistant Professor of Medicine, University of Southern California School of Medicine, Los Angeles, California; Milton H. Erickson, M.D., Associate Professor of Psychiatry, Wayne University College of Medicine, Phoenix, Arizona; and C. Joseph Stetler, LL.B., Director, Law Department, American Medical Association, Chicago, Illinois.

All medical doctors are invited and urged to attend. There is no registration fee, and the Symposium has been approved for five hours formal credit in Category I by the American Academy of General Practice. Several hundred doctors of Oklahoma, Arkansas, Kansas and Missouri are expected to attend.

A complimentary luncheon for physicians and wives will feature an address on "Emotional Problems of Parents and Children" by Doctor Litin. The Symposium will conclude with a complimentary social hour. All sessions are being held in Hotel Tulsa.



Doctor Jackson A. Smith, Professor of Psychiatry at the University of Nebraska College of Medicine, Omaha, will be one of seven distinguished guest speakers at the Fall Clinical Symposium in Tulsa, October 9.

Special entertainment has been arranged by the Auxiliary to the Tulsa County Medical Society for visiting wives. The principal feature of this will be a hat show.

A complete program will be mailed to all doctors in mid-August. Reservations for hotel rooms should be made directly with Hotel Tulsa.

Doctor Jackson A. Smith will discuss "Emotional Problems in the Geriatric Patient." The subject of Doctor Milton H. Erickson will be "The Uses of Hypnosis in Medicine." Doctor Edmund L. DuBois will discuss "Newer Steroids, Newer Uses." Doctor Frank C. Wheelock's subject is "Newer Concepts of Vascular Surgery." Doctor Alfred B. Longacre will discuss "A Tenth Anniversary Reappraisal of Broad Spectrum Antibiotics."

Because of the growing volume of malpractice suits in the United States, Mr. C. Joseph Stetler, Director of the Law Department of the American Medical Association, was selected for a special presentation on "Medico-Legal Problems in Private Practice."

Doctor Charles E. Wilbanks, President of the Oklahoma Chapter of the American Academy of General Practice, Tulsa, will preside at the morning session. Doctor Hugh Perry, Tulsa, President of the Tulsa County Medical Society, will preside at the afternoon session. Doctor Elmer E. Ridgeway, Jr., Oklahoma City, will be Chairman for the luncheon meeting.

The Committee On Arrangements includes Doctor Wilbanks, Doctor Marshall O. Hart, Doctor Earl M. Lusk, Doctor Harlan Thomas, Doctor Vance Lucas, Doctor Leo Lowbeer, Doctor Lucien M. Pascucci, and Doctor Sol Wilner.

Program Completed For Colloquy On Advance in Medicine

The Second Oklahoma Colloquy on Advances in Medicine will be held on November 12, 13, 14, and 15 in the auditorium at the University of Oklahoma School of Medicine. Devoted to Arthritis and Related Disorders, the colloquy is under the joint sponsorship of the Department of Medicine, University of Oklahoma, Geigy Pharmaceuticals, Wyeth Laboratories, The Upjohn Company, Pfizer Laboratories, Schering Corporation, and Oklahoma Chapter, Arthritis and Rheumatism Foundation.

The following program has been planned:

WEDNESDAY, NOVEMBER 12

Morning Session

Presiding: J. P. Colmore, M.D.

Associate Professor of Medicine

Director in Charge of Outpatient Clinic

O.U.

9:00-9:10—Introduction

Stewart G. Wolf, M.D.

Professor and Head, Department of Medicine

O.U.

9:10-9:50—RECENT ADVANCES IN PURINE METABOLISM IN RELATION TO GOUT

Alexander B. Gutman, M.D.

Director, Department of Medicine, Mount Sinai Hospital, New York, New York

9:50-10:30—THERAPEUTIC ASPECT OF GOUT

John H. Talbott, M.D.

Professor of Medicine, University of Buffalo School of Medicine, Buffalo, New York

10:30-10:45—Intermission

10:45-11:25—THE CONCEPT OF SECONDARY GOUT

Doctor Gutman

11:25-12:30—Questions and Answers

Afternoon Session

Presiding: James F. Hammarsten, M.D.

Associate Professor of Medicine

Chief, Medical Service

Veterans Administration Hospital

O.U.

1:30-2:10—SELECTED ASPECTS OF CONNECTIVE TISSUE DISEASE

Doctor Talbott

2:10-2:50—CLINICAL MANIFESTATIONS OF PROGRESSIVE SYSTEMIC SCLEROSIS AND DERMATOMYOSITIS

Alfred Jay Bollet, M.D.

Assistant Professor of Medicine, Wayne State

University College of Medicine, Detroit, Michigan

2:50-3:30—RECENT ADVANCES IN RESEARCH ON SERUM FACTORS IN COLLAGEN DISEASES

Ralph Heimer, Ph.D.

Department of Rheumatology, Hospital for Special Surgery, New York, New York

3:30-3:45—Intermission

3:45-4:15—HEMATOLOGICAL MANIFESTATIONS OF COLLAGEN DISEASES

Robert M. Bird, M.D.

Associate Professor of Medicine and Physiology

O.U.

4:15-5:30—Questions and Answers

6:00—Reception—Faculty House

THURSDAY, NOVEMBER 13

Morning Session

Presiding: W. W. Rucks, Jr., M.D.

Associate Professor of Medicine

O.U.

8:30-9:10—EPIDEMIOLOGY OF RHEUMATIC FEVER

Robert W. Quinn, M.D.

Professor and Head of the Department of Preventive Medicine and Public Health, Vanderbilt University, Nashville, Tennessee

9:10-9:50—EXPERIMENTAL BASIS AND RESULTS OF HORMONE THERAPY IN RHEUMATIC FEVER

Vincent C. Kelly, M.D., Ph.D.

Associate Professor, Department of Pediatrics,

University of Utah College of Medicine, Salt Lake City, Utah

9:50-10:30—SOME IMMUNOLOGIC ASPECTS OF RHEUMATIC FEVER
Doctor Quinn

10:30-10:45—Intermission

10:45-11:25—RHEUMATOID DISEASE IN CHILDHOOD
Robert A. Good, M.D.
American Legion Memorial Heart Research Professor of Pediatrics, University of Minnesota, Minneapolis, Minnesota

11:25-12:25—Questions and Answers
Afternoon Session
Presiding: R. W. Payne, M.D.
Instructor in Medicine
Associate Professor of Pharmacology
O.U.

1:30-2:10—THE BASIC MECHANISMS OF RHEUMATOID DISEASE
Thomas McP. Brown, M.D.
The George Washington University Hospital, Washington, D.C.

2:10-2:45—COMPOSITION OF THE RHEUMATOID FACTOR
Morris Ziff, M.D.
Associate Professor of Medicine, New York University College of Medicine, New York, New York

2:45-3:15—SEROLOGICAL TESTS IN RHEUMATIC DISEASES
Doctor Heimer

3:15-3:30—Intermission

3:30-4:00—METABOLISM OF ACID MUCOPOLYSACCHARIDES OF CONNECTIVE TISSUE
Doctor Bollet

4:00-4:30—SERUM GLYCOPROTEIN AND SERUMUCOID IN RHEUMATIC DISEASE
Marvin R. Shetlar, Ph.D.
Associate Professor of Biochemistry
O.U.

4:30-5:30—Questions and Answers

FRIDAY, NOVEMBER 14

Morning Session

Presiding: William K. Ishmael, M.D.
Assistant Professor of Medicine
O.U.

8:30-9:15—STUDIES ON THE PHYSICAL AND CHEMICAL NATURE OF NORMAL AND DISEASED CARTILAGE
R. H. Follis, Jr., M.D.
Armed Forces Institute of Pathology, Walter Reed Army Medical Center, Washington, D.C.

9:15-9:45—PSORIATIC ARTHRITIS
Doctor Brown

9:45-10:15—THE ARTERITIS OF RHEUMATOID

ARTHRITIS

Doctor Ziff

10:15-10:30—Intermission

10:30-11:15—TREATMENT OF RHEUMATOID ARTHRITIS

C. H. Slocumb, M.D.

Mayo Clinic, Rochester, Minnesota

11:15-12:15—Questions and Answers

Afternoon Session

Presiding: P. C. Johnson, M.D.

Assistant Professor of Medicine

Chief, Radioisotope Service

Veterans Administration Hospital
O.U.

1:30-2:00—DEGENERATIVE JOINT DISEASE

William K. Ishmael, M.D.

O.U.

2:00-2:30—UNDESIRABLE REACTIONS OBSERVED IN THE HYPERCORTISONE STATE

Doctor Slocumb

2:30-3:00—STEROID PSEUDORHEUMATISM AND OTHER COMPLICATIONS OF STEROID HORMONE THERAPY

Doctor Good

3:15-3:30—Intermission

3:30-4:00—INFLUENCE OF SALICYLATE AND OTHER ANTI-ARTHRITIC DRUGS ON STEROID METABOLISM

Doctor Kelley

4:00-5:15—Questions and Answers

SATURDAY, NOVEMBER 15

8:30-10:30—BREAKFAST ROUNDUP—Faculty House

1. Practical Considerations in the Diagnosis and Treatment of Arthritis

2. Review, questions and answers

C. H. Slocumb, M.D.

Thomas McP. Brown, M.D.

Morris Ziff, M.D.

R. W. Payne, M.D.

William K. Ishmael, M.D.

Stewart Wolf, M.D.

There will be a registration fee of \$25.00 with members of the Armed Forces, interns and residents attending without charge.

On the final day of the meeting, the University of Oklahoma football team will play the University of Missouri at Norman, Oklahoma. Registrants may apply for tickets by writing the Athletic Ticket Office, University of Oklahoma, Norman, Oklahoma.

Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

The Physician's Role in the Social Security Disability Program

The following information was sent to the Journal Editor from C. W. Robinson, M.D., Medical Consultant, Oklahoma Division, Social Security Agency, to inform the Oklahoma Physicians on the new Social Security Disability Program.

Doctors, hospitals, institutions, and agencies who have contact with disabled people are frequently asked these days to fill out medical reports in connection with claims under the disability provisions of the social security law. Under these provisions, disabled workers 50 to 65 years of age, and the disabled dependent sons and daughters of retired or deceased workers, may receive monthly disability payments. Disabled workers under age 50 may have their social security records "frozen." This protects the future benefit rights of the disabled worker and his family.

To qualify under these disability provisions, a person must be unable to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment which can be expected to result in death or to be of long-continued and indefinite duration. A disabled worker must, in addition, have social security credits for work in at least five of the 10 years before he became disabled, including a year and a half out of the three years before his disability began. A disabled child must be both unmarried and dependent, and must have become disabled before his or her 18th birthday.

Applications under the social security disability provisions are taken by the more than 570 social security district offices, located in communities all over the Nation. The social security district office gives the disabled applicant information about his rights, helps him to fill out his application, and to get proofs and documents he may need to support that application. Under the law, the disabled person is responsible for furnishing, at his own expense, the evidence to show that he is "disabled" within the meaning of the social security law.

His social security district office gives him one or more copies of a medical report form on which this evidence can be supplied. He is asked to take or mail this form to his attending physician or to a hospital, institution, public or private agency where he has been treated for his disabling condition. This report form, designed as a guide for the reporting physician, lists the kind of medical facts essential for the determination of "disability." However, the reporting doctor is not required to use it; if he prefers, he may make his report in the form of a narrative summary or he may submit photocopies of the pertinent medical records. The completed reports are to be returned by mail to the social security district office (or to a State agency, if indicated).

By providing a full and objective clinical picture of his patient, the reporting doctor fulfills his responsibility to his patient and, incidentally, expedites the decision. To be of maximum use for the evaluation of a patient's capacity for work, the report should include a history of the impairment, the symptomatology, clinical findings and diagnosis. Obviously, the reporting physician has an important role in the operation of the social security disability provisions. He is not, however, asked to decide the issue of "disability." The determination as to whether a patient is "disabled" must be made within the scope of the social security law; often it is based on evidence from more than one medical source. Also the determination must take into account factors which are not purely medical—factors such as education, training and work experience.

After the applicant has filed his claim under the disability provisions, and furnished the supporting evidence, his case is forwarded by his social security district office to an agency of his State. Under agreements between the individual States and the Federal Government, these State agencies make the disability determinations for their own residents.

In the State of Oklahoma, the agreement with the Federal Government provides for the Department of Public Welfare to make these disability determinations.

The evaluation of disability is made by a

"review team" in the State agency. There are at least two professional people on each team. One of the two is a doctor of medicine; the other is trained in evaluating the personal and vocational aspects of disability. The team must decide whether the applicant is sufficiently disabled to prevent him from engaging in any substantial gainful activity within the foreseeable future.

In many cases it is necessary to write back to the reporting physician because the medical report does not contain enough clinical facts. As a rule, the kinds of medical facts that the attending physician needs in making his diagnosis and in treating his patient are the same as those required to evaluate the severity of impairments in disability programs. However, certain medical facts are more highly significant in disability evaluation than to medical management of the case. To evaluate the effect of the impairment on the individual's ability to work requires the kind of medical evidence that confirms the diagnosis and measures remaining functional capacities of mind and body. By furnishing complete and objective evidence, the reporting physician makes it unnecessary for the reviewing physician to "write back" for additional clinical or laboratory data.

Where the medical evidence initially submitted indicates a reasonable likelihood that the applicant is disabled, but more precise clinical or laboratory findings are needed to arrive at a sound decision, or to resolve conflicts in the evidence, a consultative examination (usually at the specialist level) may be ordered to obtain additional information. Selection of consulting physicians and payment of fees are governed by State practices.

Some doctors feel that they should be reimbursed by the Government for the cost of preparing the medical reports on their patients, and it is, of course, quite within their prerogative to charge the patient a fee for that service. However, under the law, the Social Security Administration cannot pay that fee; that is the individual's responsibility.

Other doctors are perturbed when asked to complete medical reports for individuals

whom they may not have seen for years. In these cases, however, the physician is not expected to describe the present condition of the patient, but his medical condition as of the time he made his last examination.

Evaluation of Disability

The central purpose of disability evaluation is to determine remaining mental and physical capacities. To determine: (1) what the claimant has left, and (2) what he can do with what he has left.

A realistic evaluation of disability must be based on clinical and laboratory tests of the individual's ability to meet the metabolic demands of activity, to reason, to perceive, and to perform certain basic activities such as sitting, standing, bending and walking. When incapacity results from severe impairment of one or more such functions, it is essential to establish not only the fact that functional impairment exists, but also its extent.

A brief discussion of disability from heart disease may serve to illustrate the kind of evidence needed to measure the patient's remaining functional capacity, after appropriate therapy. Most frequently, impairments of the circulatory system produce loss of bodily function by reduction of cardiac reserve, or interference with peripheral vascular circulation. As a result the circulatory apparatus cannot meet effectively the metabolic demands placed upon it. The diagnosis of the condition usually reflects whether the impairment is caused by valvular disease, myocardial damage or vascular pathology.

Cardiac size by x-ray or physical and EKG findings furnish objective proof of cardiac pathology. The amount of dyspnea or angina described in terms of the number of steps that can be mounted or distance in feet or blocks that the patient can walk is highly significant to evaluation of the degree of loss of function. The presence or absence of cardiac edema and response to therapy are also indicative of severity of cardiovascular impairments. The status of the pulse in the peripheral vessels may provide gross clinical evidence of impaired circulation of the extremities.

Impairments of the cardiovascular system

may manifest themselves with dramatic suddenness, e.g., myocardial infarction, obstruction of vessels in peripheral or central nervous system circulation, lungs, and other visceral organs. The initial clinical manifestations are severe and the prognosis dubious. With survival from the acute stage, and appropriate therapy, substantial improvement can be expected over a period of time. A realistic evaluation of remaining function should be made after the convalescent period. Hence, the clinical and laboratory findings after maximum improvement from treatment are particularly valuable in making a determination of remaining cardiac, brain or other function. (Note that a "waiting period" is prescribed by law, i.e., the first monthly disability insurance benefit cannot be paid until the seventh month after the onset of the disability.) A description of the acute attack helps confirm the diagnosis and should therefore be included in the report.

Loss of function is evaluated on the basis of clinical and laboratory findings after maximum benefit from treatment. Clinical information concerning nature and response to treatment furnishes information on stability of functional capacity, i.e., a history of periodic decompensated heart disease, in spite of treatment, would indicate a comparatively severe condition.

More complicated tests of vascular function may be required in certain cases, e.g., arteriography. The reporting physician should not be concerned because he may not have equipment to perform these tests. A carefully performed exercise tolerance test (if not medically contraindicated) will almost always provide the clinical evidence needed to evaluate the degree of remaining function.

Conclusion

In developing evaluation guides for the use of State agency and its own technical and professional personnel, the Social Security Administration has had the continuing cooperation of a Medical Advisory Committee appointed by Commissioner Schottland, in February 1955. The Committee is composed of recognized specialists associated with medical and allied professions in

various fields outside Government, such as general practice, research, medical education, industry and labor.

The American Medical Association has cooperated with the Social Security Administration by informing its members about the medical aspects of the disability program, especially the preparation of medical reports. On June 1, 1957, the *Journal* of the American Medical Association carried a comprehensive report on the administration and organization of the disability provisions. Regulations on the meaning of disability appeared in the September 28, 1957, issue.

Postgraduate Courses Announced By O.U. Medical Center

Two outstanding events for the months of September and October have been announced by the office of Postgraduate Education of the University of Oklahoma Medical Center. The Orthopedic Surgery and Fracture Postgraduate Program will be held September 29 and the Oregon-Oklahoma Combined Specialty Meeting for Practicing Physicians will be held October 3-4. Both meetings will be held in the auditorium of the University of Oklahoma School of Medicine.

Orthopedic Surgery and Fracture Postgraduate Course

Subjects for the Orthopedic Surgery and Fracture course will include "Critical Analysis of the Disability In Fractures of the Os Calcis," "Ligament Injuries of the Knee," "The Common Pitfalls Encountered in the Treatment of Fractures and Their Avoidance," "The Use of Materials in Promotion of Fracture Healing," "Traumatic Arthrofibrosis; Reactions of Joints to Acute Trauma," "Pathologic Fractures in Children," "Prevention of Complications in Colles' Fracture," and "Metabolism of Fracture Healing."

Those participating in the program will be Harold J. Meier, M.D., Coldwater, Michigan; Don H. O'Donoghue, M.D., Oklahoma City; David C. Brown, M.D., Oklahoma City; Milton C. Cobey, M.D., Washington, D.C.; J. Vernon Luck, M.D., Ogden, Utah; Jack

Wickstrom, M.D., New Orleans, Louisiana; and Richard W. Payne, M.D., Oklahoma City.

A discussion period will end the program at 5:00 p.m. and a social hour and reception will follow in the Skirvin Hotel.

Following the all day Monday Session, which has been approved for seven hours credit by the Academy of General Practice, the American Fracture Association who helped develop the course, will continue meeting through October 2nd at the Skirvin Hotel.

Tuition fee for the course is \$10.00.

Oregon-Oklahoma Combined Specialty Meeting for Practicing Physicians

An interesting two-day session has been planned for the Oregon-Oklahoma specialty meeting. The first day program includes discussion of the following subjects: "Dysmenorrhea: Etiology, Diagnosis and Management," "A.C.T.H., Cortisone and Infection," "The Newer Corticosteroids," "Surgical Stress and the Adrenal Gland," "Pregnancy Following Moschowitz Procedure," "The Infertile Couple," and "The Thyroid in Pregnancy."

Participants in the program will include: Robert D. Anspaugh, M.D., Henry G. Bennett, Jr., M.D., Charles M. Bielstein, M.D., Robert M. Bird, M.D., William L. Bond, M.D., Joseph W. Funnell, M.D., Jess D. Herrmann, M.D., Robert B. Howard, M.D., Philip C. Johnson, M.D., Joseph W. Kelso, M.D., J. Neil Lysaught, M.D., Don H. O'Donoghue, M.D., John M. Parrish, Jr., M.D., Harris D. Riley, Jr., M.D., John A. Schilling, M.D., Carl Smith, M.D., S. N. Stone, M.D., Lal D. Threlkeld, M.D., Lucius Waites, M.D., and Kelly M. West, M.D., all of Oklahoma City.

On Saturday morning, preceding the Oregon-Oklahoma football game at Norman, five pre-game conferences will be held with subjects for discussion to be: "Pathogenesis and Therapy of Anemia," "Deceleration Injuries Including Athletic Injuries," "Obstetrical Problems," "Troublesome Gynecological Problems" and "Management of Convulsive Disorders."

Registration fee for the meeting will be

\$15.00. Tickets to the football game, which are \$4.00 each, plus 25c for mailing charges, may be ordered from the Athletic Ticket Office, Norman, Oklahoma.

Further information for both of the postgraduate courses may be obtained by writing to the Office of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

AMA Plans Group Practice Roster

The AMA's Council on Medical Service has been in the process of compiling information on group practices throughout the country and eventually plans to publish a directory of these groups. To date the Council has information on 989 such groups located in the United States, Hawaii and Canada. Verification sheets have been sent out to those groups already on file. Physicians who practice in groups of two or more—who have not received a check sheet—are invited to send the following information to the Council: group practice name, address, office building (indicate whether rented or owned), number of physicians, and the specialties represented.

Medical Student Awarded Research Scholarship

Mr. Charles A. Clough of 1315 Garfield Street, Norman, Oklahoma, now in his third year at the University of Oklahoma School of Medicine, Oklahoma City, has been awarded a \$500 scholarship for research and clinical training this summer in the field of the allergic diseases.

Mr. Clough will work on studies on the Mechanism of action of Adrenal Steroids in protection against histamine, under the direction of Doctor Alan J. Stanley, Professor of Physiology at the University of Oklahoma.

Mr. Clough was born in Oklahoma City and is married. He received his B.S. degree at the University of Oklahoma in 1955, and is a member of the Phi Sigma and Lambda Tau societies. He has previously worked as

a Research Assistant at the University of Oklahoma during the summer of 1955.

The Allergy Foundation of America awarded the \$500 summer or quarterly scholarships to twenty-two medical students from medical schools throughout the United States and Canada to encourage young students to broaden their knowledge in the field of the allergic diseases by research and clinical training.

Purpose of these awards is to expose the student to experience in the basic sciences related to allergy and to broaden the application of this knowledge through clinical experience. These summer scholars will work under the direction of scientists both in research and in the clinics.

These awards were made possible by grants to the Allergy Foundation of America by the Gustavus and Louise Pfeiffer Research Foundation, Mr. John D. Rockefeller, Jr., Mr. Peter Kuhn and the Barker Welfare Foundation.

Medical Assistants Announce Program for Chicago Meeting

Final plans have been made for the Second Annual Convention of the American Association of Medical Assistants which will be held at the Palmer House, Chicago, on October 31, November 1 and 2, 1958.

The Association, which now has six thousand members in seventeen states, outlines its purposes as follows: "To inspire its members to render honest, loyal and more efficient service to the profession and to the public which they serve. To strive at all times to cooperate with the medical profession in improving public relations. To render educational services for the self-improvement of its members and to stimulate a feeling of fellowship and cooperation of the societies. To encourage and assist all unorganized medical assistants in forming local and state societies. This association is declared to be non-profit. It is not nor shall it ever become a trade union or collective bargaining agency."

Oklahoman to Head Group

At the Chicago meeting, Lucille Swearingen, Bartlesville, will be installed as president of the national organization at ceremonies to be held in the Grand Ballroom of the Palmer House on November 1. Mrs. Swearingen is an assistant of Vernon M. Lockard, M.D., Bartlesville radiologist.

A large turnout is expected for the meeting with a sizeable number of Oklahoma assistants planning to attend. The educational aspects of the year's program, which is printed below, should adequately illustrate the value of this event to physicians whose assistants want to attend.

PROGRAM

Friday, October 31

- 8:00-10:00 a.m.—Registration
- 8:00 - 9:00 a.m.—House of Delegates Meeting
- 9:00-11:00 a.m.—General Business Session
(Welcome by Doctor F. L. Blasingame, Executive Vice President of the American Medical Association)
- 11:00-12:00 noon—Advisors Symposium
Leo J. Starry, M.D., Moderator
"The Value of This Association to Doctors"—Fred Sternagel, M.D.
"Office Assistants and Blue Shield"—Robert L. Schaeffer, M.D.
"Professional Ethics"—Frederick H. Halls, M.D.
"Jobs Delegated to Medical Assistants"—Murray C. Eddy, M.D.
- 2:00 p.m.—Board Buses for AMA Building
- 2:30-5:00 p.m.—Tour of AMA Building and program in their auditorium
(Speakers, films and exhibits to be furnished by AMA)
- 6:00-7:00 p.m.—Social Hour
- 7:00 p.m.—Dinner
Lucille Swearingen, Presiding.
Speaker—Morris B. Fishbein, M.D.

Saturday, November 1

- 8:00 a.m.—House of Delegates Meeting—Election
The special sections listed under "Business," "Technical" and "Medical." Three rooms will be running at the same time with a medical assistant manning each one. Girls may choose which subjects they are especially interested in and go to these rooms. Rooms will be fully equipped with the latest office machines, laboratory equipment and office furniture.
- ROOM I—BUSINESS
- 9:00-9:30—Insurance (Daniel C. McKay, The Paulsen Insurance Co.)
- 9:45-10:15 a.m.—Office Machines (Colorado M.A. presiding)
- 10:30-11:00 a.m.—Credit (Maynard L. Keecox, Medical-Dental Hospital Bureaus of America)
- 11:15-11:45 a.m.—Records-Forms (Colwell Publishing Co., etc.)

3:30-4:00 p.m.—Telephone Techniques (Illinois Telephone Co.)

4:15-4:45 p.m.—Banking (Raymond S. Blunt, Sr., C.P.A.)

ROOM II—MEDICAL

9:00-9:30 a.m.—Emergencies (Missouri M.A.)

9:45-10:15 a.m.—Medicolegal Problems (George Hall, AMA)

10:30-11:00 a.m.—Case Histories—Pertinent Information (Michigan M.A.)

11:15-11:45 a.m.—Good Housekeeping and Personal Grooming (Texas M.A.—2)

3:30-4:00 p.m.—Civil Defense and How We Can Help (Harold Lueth, M.D. FCDA, Medical Consultant, Health Division, Operations Service)

4:15-4:45 p.m.—Public Relations (Jerry Harris, Medical Arts Division of Creditors Bureau, El Paso, Texas)

ROOM III—TECHNICAL

9:00-9:30 a.m.—New Laboratory Procedures (Mr. A. Coldiron and Iowa M.A.)

9:45-10:15 a.m.—New Developments in X-ray (Robert G. Morris, Jr., M.D.)

10:30-11:00 a.m.—Inner Office Professional Ethics (California M.A.)

11:15-11:45 a.m.—ECG, Ultrasonic and Diathermy (Herbert Levinger, A. S. Aloe Co.)

3:30-4:00 p.m.—Aseptic Techniques (Wisconsin M.A.)

4:15-4:45 p.m.—What Is Good Practice for the Physician and Medical Assistant? (Ralegh Oldfield, M.D., President, Illinois Medical Society)

GENERAL SESSION

2:00-3:20 p.m.—“Go and Do Likewise”—Harold Scherer, Business Manager, Monroe Clinic, Monroe, Wisconsin

“Is the Welcome Mat Out”—I. D. Harvey, Divisional Sales Manager, Abbott Laboratories, North Chicago, Illinois

6:00-7:00 p.m.—Social Hour and Reception

7:00 p.m.—BANQUET AND INSTALLATION OF OFFICERS

Presiding: Mary Kinn, President, American Association of Medical Assistants

Master of Ceremonies: Robert J. Samp, M.D., Director of Tumor Clinic, University Hospitals, Madison, Wisconsin

Sunday, November 2

10:00-12:00 noon—Sunday morning Brunch

Farewell from Chicago and an invitation to Philadelphia in 1959

* * * * *

Hotel reservations should be made directly with: Palmer House, Chicago, Illinois:

Rates: Singles—\$ 8.00-\$16.00

Doubles—\$14.50-\$20.00 No deposit necessary

Twins—\$15.50-\$22.00

Registration fee of \$18.00 includes:

Friday: Tour of the American Medical Association building, program in their auditorium, and transportation from and return to hotel.

Friday: Dinner in the Red Lacquer Room.

Saturday: Cocktail party and banquet—Grand Ballroom.

Sunday morning: Brunch.

THE CITATION

MEDICO-LEGAL BRIEFS

Prepared by the Law Department of the
American Medical Association

TAX REGULATION—The Commissioner of Internal Revenue has liberalized the rules on the deductibility of expenses for education applicable to physicians. The new rules provide in part, that “expenditures made by a taxpayer for his education are deductible if they are for education (including research activities) undertaken primarily for the purpose of: (1) Maintaining or improving skills required by the taxpayer in his employment or other trade or business. . . .”

Regs. 1.162-5. Expenses for education.

TAX RULING—A new Internal Revenue ruling provides that the amount of the checks received by a physician from patients he has treated in a hospital in which he is employed full time, which checks he is required to endorse over to the hospital, is not includable in his gross income.

Rev. Rul. 58-200

INSURANCE DISCOVERY—The Supreme Court of Illinois has held that one must answer discovery interrogatories respecting the existence and amount of liability insurance. In its opinion, the Court reviewed decisions in other jurisdictions and found that California, Kentucky, and the Federal District Courts of New York and Tennessee have permitted insurance discovery, while New Jersey, Nevada, Minnesota, and the Federal District Court of Pennsylvania have not.

People v. Fisher, 145 N.E. 2d 588 (Ill., Nov. 19, 1957)

Further information on the preceding cases may be obtained from the Law Department, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

Coming Meetings

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

POSTGRADUATE PROGRAM*

Oklahoma City, Oklahoma

Individual Postgraduate Courses

ORTHOPEDIC SURGERY AND FRACTURE POSTGRADUATE COURSE—Sept. 29

Developed by the American Fracture Association and precedes the meeting of the American Fracture Association, September 30 through October 2.

OREGON-OKLAHOMA COMBINED SPECIALTY MEETING FOR PRACTICING PHYSICIANS—October 3 and 4

Combined Scientific Session Friday, Oct. 3. Saturday morning choice of pre-game (Oregon-Oklahoma) Round-table Breakfast Conferences in Surgery, Medicine, Pediatrics, Obstetrics, Gynecology.

ARTHRITIS AND RELATED DISORDERS—Nov. 12, 13, 14, and 15

Second Oklahoma Colloquy on Advances in Medicine. The program will be devoted to Arthritis and related disorders. Twelve nationally prominent investigators in their field will participate and present the results of original work from their laboratories.

ADVANCE ELECTROCARDIOGRAPHY—March 2 through 6

(Prerequisite, Dr. Bayley's Basic Electrocardiography course.)

OBSTETRICAL-GYNECOLOGICAL SYMPOSIUM—March 7

Sponsored by the Oklahoma City Obstetrical and Gynecological Society. There will be two prominent guest lecturers.

OPHTHALMOLOGY-OTOLARYNGOLOGY

SYMPOSIUM—March 12 and 13

Sponsored by Oklahoma City Society of Ophthalmology and Otolaryngology.

Guest Lecturers:

Michael J. Hogan, M.D., Ophthalmologist, San Francisco.

Prominent Otolaryngologist to be announced.

ORTHOPEDIC SYMPOSIUM—April 10 and 11

Treatment of Athletic Injuries.

Sponsored by the Regional Committee on Trauma of the American College of Surgeons.

FIFTH ANNUAL COMBINED SURGERY, RADIOLOGY, PATHOLOGY SYMPOSIUM—May 14 and 15

Diagnosis and Treatment of Thyroid Diseases.

Sponsored by the Oklahoma Association of Pathologists, Oklahoma Association of Radiologists and

Oklahoma Chapter of American College of Surgeons. Guest participants of national reputation in surgery, radiology and pathology will participate.

OKLAHOMA ASSOCIATION OF HOUSE STAFF PHYSICIANS—May 22

Two guest lecturers and presentation of original papers by members of the various house staffs will highlight this program. Participating hospitals are: Hillcrest Medical Center, Tulsa, St. John's, Tulsa; McBride, Mercy, St. Anthony, University, Veterans Administration, Wesley, Oklahoma City; Central State Hospital, Norman.

SERIAL POSTGRADUATE COURSE

Postgraduate Division

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

Oklahoma City, Oklahoma

1958-1959

Sept. 10—Medicine—Advances in Diabetes Mellitus.

Oct. 3—Pediatrics—Pediatric Diagnosis Problems.

Nov. 19—Surgery—Ano-Rectal Lesions and Their Management.

Dec. 10—Medicine—The Selection of Patients for Cardiovascular Surgery.

Jan. 14—Pediatrics—Diagnosis and Management of Heart Disease in Infancy and Childhood.

Feb. 11—Urology Symposium and C. B. Taylor Lectureship. (Guest Lecturer to be Announced.)

Mar. 11—Medicine—Advances in the Diagnosis and Management of Common Allergic Disorders.

April 8—Anesthesiology—Anesthesia for the Part-Time Anesthetist.

May 13—Pediatrics—Antimicrobial Therapy and Treatment of Infectious Disease in Childhood.

June 10—Surgery—Herniae.

Designed so physicians may attend four hours of formal instruction in the above fields while spending only one-half day from their office, this series is approved for credit by the Oklahoma Academy of General Practice. Time will be 3:30 to 8:30 p.m. on the Second Wednesday of each month, September through June. Registration is \$3.00 per session or \$25.00 for the entire series.

*Further information may be obtained from the Office of Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th Street, Oklahoma City, Oklahoma.

OKLAHOMA CITY CLINICAL SOCIETY

October 27, 28, 29, 1958

Biltmore Hotel Oklahoma City

The Twenty-Eighth Annual Conference of the Oklahoma City Clinical Society will be held October 27, 28 and 29 in the Biltmore Hotel, Oklahoma City. Registration fee of \$20.00 will include all features. Further information may be obtained by writing to: Executive Secretary, 503 Medical Arts Building, Oklahoma City, Oklahoma.

SECOND OKLAHOMA COLLOQUY

ON ADVANCES IN MEDICINE

November 12, 13, 14 and 15, 1958

The Second Oklahoma Colloquy on Advances in Medicine will be held on November 12, 13, 14 and 15. Eleven nationally prominent investigators in their field will participate and present the results of original work from their laboratories.

Registration will be open to all physicians. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

AMERICAN FRACTURE ASSOCIATION

September 30, October 1, 2, 1958

Hotel Skirvin

Oklahoma City, Oklahoma

The American Fracture Association will hold its 19th Annual Meeting in Oklahoma City, September 30, October 1-2, 1958 at the Hotel Skirvin.

The meeting will be preceded and coordinated with the University of Oklahoma School of Medicine, Postgraduate Division, which will meet Monday, September 29 at the Medical School Auditorium. The postgraduate course at the Medical Center is acceptable for category #1 by the American Academy of General Practice. The Association meeting is acceptable for category #2.

Further information and a detailed program may be obtained by writing to the American Fracture Association, 610 Griesheim Building, Bloomington, Illinois.

COLORADO STATE MEDICAL SOCIETY

ANNUAL MEETING

September 24-27, 1958

Colorado Springs

The Colorado State Medical Society's Annual Ses-

sion will be held at the Broadmoor Hotel, Colorado Springs, September 24-27, 1958. Further information may be obtained by writing to Harvey T. Sethman, Executive Secretary, Colorado State Medical Society, 835 Republic Building, Denver, Colorado.

AMERICAN CANCER SOCIETY

ANNUAL SCIENTIFIC SESSION

SYMPOSIUM ON CANCER OF THE COLON AND RECTUM

October 20-21, 1958

Biltmore Hotel

New York City

A complete program of the Symposium on Cancer of the Colon and Rectum to be presented at the Annual Scientific Session of the American Cancer Society may be obtained by writing to Director, Professional Education, American Cancer Society, Inc., 521 West 57th Street, New York 19, New York.

THE UNIVERSITY OF TEXAS CLINICAL CONFERENCE ON CANCER CHEMOTHERAPY

November 14-15, 1958

Houston, Texas

The University of Texas M.D. Anderson Hospital and Tumor Institute and The University of Texas Postgraduate School of Medicine will present the third annual clinical conference on November 14 and 15, 1958 at the Texas Medical Center in Houston.

Eight hours credit will be certified by the American Academy of General Practice for attendance at this conference. An advance \$5.00 registrar's fee must accompany the registration for the Academy. Further information and a detailed program may be obtained from the University of Texas Postgraduate School of Medicine, Jesse Jones Library Building, Houston, Texas.

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS DISTRICT VII

September 12-13, 1958

Jackson, Mississippi

District VII, American College of Obstetrics and Gynecologists, will meet in Jackson, Mississippi September 12 and 13. The program consisting of scientific papers, round tables and movies will be held in the King Edward Hotel. Further information may be obtained by writing to C. G. Sutherland, M.D., The Woman's Clinic, 918 North State Street, Jackson, 2, Mississippi.

**SOCIETY FOR CLINICAL AND EXPERIMENTAL
HYPNOSIS**

October 29-30, 1958

Chicago, Illinois

The Society for Clinical and Experimental Hypnosis, an International Scientific Society, comprised of physicians, dentists and psychologists engaged in the clinical use of hypnosis, will present a scientific program in Chicago at the Morrison Hotel, October 29-31, 1958.

The program will include Breakfast Seminars, Round-table Luncheons, Panel Discussions and Formal Presentations. The Medical Program will include such topics as: Hypnotherapeutic Control of Habit Patterns: During Addiction, Smoking, Overweight; Hypnosis in Physical Therapy and Rehabilitation; Hypnosis in Asthma and Allergic Manifestations; Use and Abuse of Hypnosis in General Practice; Hypnosis in Pediatrics and Geriatrics; Hypnosis in Minor and Major Surgery; Hypnosis in Internal Medicine; Hypnoanesthesia in Obstetrics; Physiology of Hypnosis; and Hypnosis in Psychiatry.

Immediately preceding the Annual Meeting of the Society for Clinical and Experimental Hypnosis, the Institute for Research in Hypnosis of the Long Island University Postgraduate School will present its Annual Workshop in Clinical Hypnosis, October 27-29, at the Morrison Hotel.

Registration for Breakfast Seminars, Round-table Luncheons and General Sessions will be limited. For a copy of the program and more detailed information, write to the Administrative Secretary, Society for Clinical and Experimental Hypnosis, 750 North Michigan Avenue, Chicago 11, Illinois.

ACADEMY OF PSYCHOSOMATIC MEDICINE

October 9-11

New York, New York

The fifth annual meeting of the Academy of Psychosomatic Medicine will be held October 9-11, 1958, at the Park Sheraton Hotel in New York City. The program will be devoted to the Psychosomatic Aspects of Internal Medicine and will include formal papers, panel discussions and luncheon conferences.

Information may be obtained from Bertram B. Moss, M.D., Suite 1035, 55 East Washington Street, Chicago 2, Illinois.

Have You Heard?

H. H. MACUMBER, M.D., of the Chickasha Hospital and Clinic has moved to Ventura, California where he will be associated with the Ventura Medical Group.

ROBERT MITCHELL, M.D., and ED POINTER, M.D., both of Henryetta, are moving to Sallisaw in September. They will occupy newly remodeled offices in the Latimer building on Choctaw Street. Both Doctor Mitchell and Doctor Pointer graduated from the University of Oklahoma School of Medicine.

DOCTOR AND MRS. L. GORDON LIVINGSTON, Cordell, are now touring Europe and recently attended the World Medical Association meeting in Copenhagen.

WILLIAM BEST THOMPSON, M.D., of Oklahoma City, has been elected president of the Oklahoma State Heart Association. Included on the executive committee are H. W. WENDELKEN, M.D., Miami; TERRELL COVINGTON, JR., M.D., Tulsa; and JEROME D. SHAFFER, M.D., of Oklahoma City.

As a token of appreciation for his years of service to Seminole, J. T. PRICE, M.D., retired Seminole physician, was recently presented a TV set by a group of friends, clubs and business firms of Seminole.

F. DAVID KALBFLEISCH, M.D., began his practice in Lawton in July. Doctor Kalbfleisch, a native Lawtonian, graduated from University of Oklahoma School of Medicine in 1956. He interned at Parkland Memorial Hospital in Dallas and at the Veterans Hospitals in Dallas and McKinney, Texas. The new offices of Doctor Kalbfleisch are located in the Lawton Clinic, 605 Gore Street.

L. L. LOWRY, M.D., from Anadarko and BAILEY L. DIETRICH, M.D., Boise City, have joined the staff of the Buford-Oxley Clinic in Guymon.

Organization News

AMA Begins Reorganization

A first step in the American Medical Association's broad re-organization plans was reviewed and approved by the Board of Trustees, meeting in Chicago during the week-end of August 2-3.

The purpose was to streamline AMA's administrative set-up. No changes were made that require changes in the constitution and by-laws. Nor were the relationships between the standing committees and the Board of Trustees or House of Delegates disturbed. Program content also remains the same for the time being.

Six new divisions were established: Business, Law, Communications (professional and public relations), Field Service, Scientific Publications (editorial), and Council Administration. The last division is temporary, pending further study of the scientific and socio-economic activities of the Association. The directors of the divisions are, respectively, Russell H. Clark, C. Joseph Stetler, Leo E. Brown, Aubrey Gates, Doctor Austin Smith, and Doctor Ernest B. Howard, assistant executive vice president, who will administer the temporary divisions.

Important administrative realignments include: (1) the transfer of AMA News and Today's Health editorial functions to the Communications Division, and (2) centralization of all advertising, circulation and printing activities in the Business Division.

New positions established and filled are the office of assistant to the executive vice president (Tom Hendricks) and director, Field Service Division (Aubrey Gates).

The over-all legislative program, including the Washington Office, Committee on Legislation, and related field activities, will be reviewed by a special committee of trustees and delegates appointed at the August 2 meeting of the Board. The existing organizational pattern for legislative activities will be continued until this special committee reports its recommendations to the Board.

OSMA 1958 Committees Completed

E. C. Mohler, M.D., recently announced the following committees for the 1958-59 year, which are in addition to those carried in the July issue of *The Journal*:

Medico Legal Relations

Marshall O. Hart, M.D., Tulsa, Chairman
William T. Gill, M.D., Ada
S. N. Stone, M.D., Oklahoma City
Earl McBride, M.D., Oklahoma City
Thomas H. Mitchell, M.D., Tulsa

Blue Cross-Blue Shield Liaison

Henry T. Russell, M.D., Enid, Chairman
R. B. Howard, M.D., Oklahoma City
Tullos O. Coston, M.D., Oklahoma City
Frank Nelson, M.D., Tulsa
Vernon M. Lockard, M.D., Bartlesville
C. S. Graybill, M.D., Lawton
Carl Lindstrom, M.D., Tulsa
Robert F. Loughmiller, M.D., Oklahoma City
E. M. Henry, M.D., McAlester
Kenneth L. Wright, M.D., Ardmore
Charles E. Wilbanks, M.D., Tulsa
R. G. Obermiller, M.D., Woodward
Donald Olson, M.D., Vinita

Donahue, Turner To Attend Conference On Aging

Hayden Donahue, M.D., Chairman of the OSMA's Committee on Health Care of the Aged, and Henry H. Turner, M.D., Committee member, will attend the American Medical Association's Conference on Aging, September 13-14, Chicago.

The purpose of the meeting is to coordinate medicine's activities in the field of aging. The program will include: presentation of the major challenges to the medical profession in the area of aging; opportunity for each participant to discuss these challenges as they relate to the activities of the medical societies they represent; round table discussions on the activities of other national organizations in the field, and scientific papers.

OSMA To Entertain O.U. Medical Students

The annual dinner for members of the University of Oklahoma Chapter of the Student American Medical Association has been scheduled for October 17 at the Petroleum Club, Oklahoma City, beginning at 7:30 p.m. Sponsored each year by the Oklahoma State Medical Association, the event affords an opportunity for members of the OSMA and the student AMA to lay the foundation for future relationships as professional and organizational colleagues.

A number of special guests have been invited to attend the buffet dinner, including Earnest B. Howard, M.D., Assistant Executive Vice-President of the American Medical Association, Russell F. Standacher, Executive Secretary of the Student American Medical Association, his assistant, Robert Reed and George L. Cross, Ph.D., President of the University of Oklahoma.

In addition, preceptors and preceptees, council members and officers of the OSMA will be sent invitations. Final arrangements for the evening's program are being made by Hershel L. Douglas, President of the Student AMA and E. C. Mohler, M.D., OSMA President.

McAlester Symposium Well Attended

Over one hundred physicians attended the Southeastern Oklahoma Clinical Symposium which was held on August 9-10 at the McAlester Clinic. Jointly sponsored by the Clinic and the Department of Postgraduate Education, University of Oklahoma School of Medicine, the symposium program was comprised of two out-of-state authorities as well as a member of Oklahoma specialists.

Special out-of-state guests were Phillip W. Brown, M.D., Mayo Clinic, and K. M. Earle, M.D., University of Texas Medical Branch, Galveston.

State speakers were: Dixon N. Burns, M.D., Tulsa; Robert A. Fouty, M.D., Tali-

hina; Tom S. Gafford, M.D., Muskogee; Jess E. Miller, M.D., Oklahoma City; William R. Murphy, Jr., M.D., McAlester; Harris D. Riley, Jr., M.D., Oklahoma City; and Joseph M. White, M.D., Oklahoma City.

In addition, Robert J. Bell, McAlester attorney, directed a Sunday afternoon discussion of medical-legal problems. His talk followed a film on the same subject.

Recreation for the weekend affair included a dinner dance, fishing and water skiing excursions as well as several events planned especially for wives.

Medicare Cutback Imposed by DOD

After weeks of uncertainty, the Defense Department has announced how it will effect budgetary economies in the Medicare program. The new policies were outlined in Washington on August 8 before representatives of state medical societies, Blue Cross-Blue Shield, Mutual of Omaha, the American Medical Association and the American Hospital Association. Walter E. Brown, M.D., OSMA Medicare Chairman and Dick Graham, Executive Secretary, represented Oklahoma.

At the August 8 meeting a brief of the proposed cutback plan of the Department of Defense was outlined. The cutbacks dealt principally with maternity care, emergency care, injuries, termination visits, pre and post surgical tests, neo-natal visits, nervous and mental diseases, acute emotional disorders and elective surgery.

Delegates May Be Called

The above changes as outlined at the Washington meeting have not as yet become official and there will not be an official change until approved by the Oklahoma State Medical Association.

According to E. C. Mohler, M.D., President of the OSMA, and Doctor Brown, a special meeting of Oklahoma's House of Delegates will probably be called, upon receipt of the official regulations, to review the restrictions and determine the Association's future relationship with the program.

The
Achievements
of

ARIST

...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only $\frac{2}{3}$ that of prednisone¹... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*²...absence of serious side effects specifically noted.^{1, 2, 3}

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients⁴... 6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).⁵

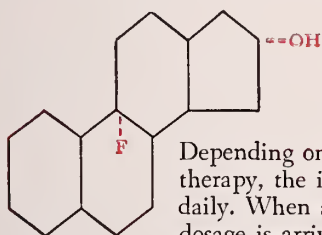
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13. Dubois, E. L.: Personal Communication.

ARISTOCORT[®]

Triamcinolone LEDERLE

...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.⁶... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.⁷

...in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.^{8,9}... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.^{10,11,12}... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.¹³



Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about $\frac{1}{3}$ in rheumatoid arthritis, by $\frac{1}{3}$ in allergic rhinitis and bronchial asthma, and by $\frac{1}{3}$ to $\frac{1}{2}$ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

ARISTOCORT is available in 2 mg. scored tablets (pink), bottles of 30; and 4 mg. scored tablets (white), bottles of 30 and 100.

Oklahoma County Forms Hearing Association

A unique hearing project was recently inaugurated in Oklahoma County with the establishment of the Oklahoma County Hearing Association. This endeavor is jointly sponsored by the Community Council and the Oklahoma Rehabilitation Service. Financial support is obtained from the federal office of Vocational Rehabilitation and the American Hearing Society, a national voluntary health agency.

In explaining the problems with which the Association will deal, Lee M. Jones, President, said, "... There must be an awareness in the minds of all the people that in each succeeding year of age, hearing loss becomes more prevalent and more difficult to overcome by any kind of rehabilitative measure. The first goal of the Association is to locate young adults in Oklahoma County and see that the agencies or individuals responsible for treatment, training and placement offer a coordinated program of services to them. The tragedy of deafness is not understood by those with good hearing. Medical treatment and compensatory measures are not demanded strongly enough by those who suffer from impaired hearing. Psychologically, this phase needs clarification. The mental process of the hearing handicapped requires a different approach from those in any other health field. Deafness does not kill or maim its victims, but it does devastate them in a way that is more damaging to their personalities and social well being than most disabilities. Educationally, the young are seriously handicapped and vocationally, their abilities are apt to be underestimated. For those employable age, the opportunity for work or advancement on a job is often denied."

The Board of the Oklahoma County Hearing Association is comprised of representatives from the fields of medicine, audiology, education, law, labor, industry, recreation, religion and all the social agencies that come in contact with the deaf and the hard of hearing in Oklahoma County. Jack Hough, M.D., Oklahoma City, is the medical member of the Board.

Located at Room 308, YWCA, Oklahoma

Oklahoma Well Covered By Health Insurance

The number of people in Oklahoma covered by voluntary health insurance has reached a new high, the Health Insurance Council reported August 20. The Council estimates that over 1,435,000 persons in the state now are protected by some form of insurance designed to help pay hospital and doctor bills.

This figure, the Council said, is part of the continued growth of health insurance throughout the country, which was revealed in its 12th annual survey of the extent of voluntary health insurance coverage for 1957. The number of people covered by some form of health insurance in the nation, according to a Council estimate, is now 123,000,000, or 72% of the total U.S. civilian population.

The Council survey, based on reports of insurance programs of insurance companies, Blue Cross-Blue Shield and other health care plans, points out that the 1,435,000 persons covered by hospital expense insurance in Oklahoma as of December 31, 1957, surpasses the 1956 year-end total of 1,320,000.

The number of people with surgical expense insurance, which helps to defray the cost of physicians' charges for operations, climbed to 1,350,000 as compared to 1,199,000 in 1956.

Persons protected by regular medical expense insurance, providing for doctor visits for non-surgical care, rose to 811,000, compared to 738,000 the year before.

The Health Insurance Council, which is a federation of eight insurance associations representing over 90% of the accident and health insurance business handled by insurance companies, stated that this growth reflects the desire of the people of Oklahoma to help protect themselves against the cost of accident and illness.

City, the Association is under the direction of Mrs. Margaret L. Washington, the Rehabilitation Coordinator for the American Hearing Society. Patients in Oklahoma County who are in need of social and vocational adjustment may be referred to the Association.



MAYFAIR MEDICAL CENTER MOVES TO NEW BUILDING

An open house was held June 15, 1958, in the newly completed Mayfair Medical Center, 2925 Northwest 50th Street, Oklahoma City.

Modern in design and completely fireproof, the air-conditioned building has some 6,500 square feet of floor space plus basement storage. Complete laboratory, x-ray, minor surgery, physical therapy and recovery facilities are provided. In addition, there are twelve medical treatment rooms and four dental suites.

Located in the building are Nolen L. Armstrong, M.D., Martin H. Andrews, M.D., Leonard R. Diehl, M.D., William N. Gibbens, D.D.S., and Robert K. Wynne, D.D.S.

Architect for the building was Ray Bowman with the firm of Cirlos, Nicek and Associates.

Association Aids Farm Home Conference

Two guest speakers and two exhibits were furnished by the Oklahoma State Medical Association for the 41st Annual Farm Home Conference, August 4-7, at Stillwater. Aubrey Gates, Director of the newly-formed AMA Field Service Division and Dick Stalvey, representing the Communications Division of the AMA, were two of the outstanding personalities appearing on the program.

With a theme of "New Accents in Family Living," the conference attracted nearly two thousand home demonstration agents and other rural health workers.

Mr. Gates' topic was "You and Your Health Dollar." "Mechanical Quackery" was the subject covered by Mr. Stalvey, a former employee of the Food and Drug Administration and recently associated with the AMA's Bureau of Investigation. Both talks were well received by those in attendance.

The AMA exhibits, "Testing the Drinking Driver" and "Where Your Medical Dollar Goes" were also furnished by the OSM for the health education exhibit section of the meeting.

Book Review

Diabetes As a Way of Life. T. S. Danowski. Coward-McCann, Inc., 1957.

The present volume is designed to fill the gap between the earlier publication, **DIABETES MELLITUS WITH EMPHASIS ON CHILDREN AND YOUNG ADULTS**, and a similar manual used by the author for distribution to patients. The former proved to be too detailed not only for patients but also for paramedical professions such as nursing, dietetics and social service.

The book is divided into 16 chapters and numbers 177 pages. The first chapter, entitled "Diabetes as a Way of Life," after a resume of the reported incidence of the disease, gives a definition and explanation of many aspects of diabetes—when it begins, the emotional aspects, and the role of the doctor, the patient and his family. The following two chapters are concerned with manifestations of satisfactory and unsatisfactory control and the principles of dietary treatment and insulin substitution. The factors which make diabetes worse and such problems as acidosis and coma are discussed. However, relatively little emphasis is given the important problem of insulin shock and its irreparable cerebral damage.

Several chapters are concerned with the unique problems in the life of the diabetic. There is adequate treatment of the problems associated with infections and surgery in the diabetic, diabetes in children, pregnancy in diabetics, and other problems. The chapter on social aspects of diabetes is excellent. In this section many problems of the diabetic, which are rarely covered in texts but are of great importance, are discussed. The responsibility of the housewife, the hostess, "dating," practical aspect of travel for the diabetic, and other social aspects of the disease are covered. The chapter entitled "Living with Diabetes" discusses attitudes and expectations in the disease. The latter portion of the book, made up of sections on questions and answers, which constitutes a check-list for the diabetic, and a glossary of terms for diabetics, should find real use.

Have You Heard?

BRYCE OWEN BLISS, M.D., Shawnee, opened his new office at 111 West Shawnee Street in July. Doctor Bliss graduated from the University of Oklahoma in 1957.

WARREN L. FELTON, II, M.D., announced the opening of his offices at 1200 North Walker, Oklahoma City. Doctor Felton is a Diplomate of the American Board of Surgery and of the Board of Thoracic Surgery.

GLEN FLOYD, M.D., will move into new offices in the Price Tower, Bartlesville, in September. Doctor Floyd's practice is limited to Ophthalmology.

PHILLIP G. WALTERS, M.D., has joined the staff at the Loy Clinic in Pawhuska. Doctor Walters is a graduate of the University of Oklahoma School of Medicine and did his preceptorship at the Loy Clinic.

LAWRENCE E. SILVEY, M.D., is a new associate of L. N. GILBERT, M.D., and KENNETH OGG, M.D., in the Gilbert Clinic in Bethany. Doctor Silvey took his medical training at the University of Kansas School of Medicine.

JOHN A. ORBIN, M.D., from Tulsa, and IRVIN C. MCLENDON, M.D., a native Georgian, recently joined the Britton Road Clinic in Oklahoma City. Doctor Orbin is a graduate of the University of Oklahoma School of Medicine and Doctor McLendon graduated from the Medical College of Georgia.

The contents are based on the author's experience and very little, because of the objective of the book, is given to opposing opinions concerning the disease. Several minor errors in printing are noted.

In the reviewer's opinion this work is too detailed for the average diabetic patient or his family. It can be recommended for certain selected patients and is an excellent reference source for physicians in interpreting to patients and their families the problems associated with diabetes mellitus.—*Harris D. Riley, Jr., M.D.*

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association September, 1933.

THE CRIPPLED HAND

Curt Von Wedel, M.D., Oklahoma City

"Deformities of the hand constitute one of the very serious catastrophies that befall mankind. Next to permanent brain injury and blindness, serious loss of the use of the hands does more to incapacitate one in our social lives, than probably any other single factor. We are going to briefly sketch in this talk, some of the more common conditions, which can be easily remedied. . . .

If you do not know your anatomy, get down your book, put it on the table next to you, open at the page showing the tendons and nerves of the hand, and refer to it as you sew up the hand. I have found in most instances that the difficult thing for the men to differentiate is the nerve from the tendon. There are only two nerves of any consequence; the ulnar and the median. The median nerve is directly under the tendon which sticks out when one fully extends the fingers, and is known as *Palmaris Longus*. This nerve is usually cut and inasmuch as it is the nerve of sensation for most of the hand, it is very important. The upper end will not contract, but the lower end springs into the palm. The common instinct is to sew the median nerve into the palmar fascia, mistaking it for the tendon. If you are not sure, make a longitudinal incision into the nerve. You will find it pinkish and vascular. The tendon is white, hard, and has little blood supply. The ulnar nerve lies deep next to the flexor carpi ulnaris. This is much more easily found as it does not usually retract into the palm. With a book before you (if you do not understand the relationship), the nerves can be carefully approximated, end to end, with fine number A Corticelli black silk and an ordinary straight needle. These needles can likewise be used for accurate end to end approximation of tendons. One does not need a lot of heavy stuff, because we flex the wrist when we put up the hand so there is no tension whatsoever. The main thing is to take your time; it takes hours. . . ."

Editorial Notes—Personal and General

" . . . DR. W. S. IVY, Duncan, who was injured in an automobile accident near McLean, Texas, is reported improving. . . .

"WOODS-ALFALFA COUNTY MEDICAL SOCIETIES held their July meeting at Winchester Lake on

Deaths

N. K. WILLIAMS, M.D.
1891-1958

N. K. WILLIAMS, M.D., 67-year-old McCurtain physician, died at his office on July 14, 1958. Doctor Williams had practiced in McCurtain for nearly forty years. He was active in civic and community activities and had served as a member of the McCurtain School Board for nearly 30 years.

Born in Morrilton, Arkansas, Doctor Williams graduated from the St. Louis College of Physicians and Surgeons in 1918. He also attended Baylor University, Waco, Texas.

GEORGE S. MECHLING, M.D.
1905-1958

George S. Mechling, M.D., 52 year-old former Oklahoma physician, died in New Orleans August 23, 1958.

Born in Newkirk in 1905, Doctor Mechling graduated from the University of Oklahoma School of Medicine in 1932 and later was a professor in the same school. After residing in Oklahoma City for 33 years, he moved to Jackson, Louisiana where he joined the staff of the East Louisiana State Hospital.

Doctor Mechling was a Diplomate of the American Board of Anesthesiology, a Fellow of the International College of Anesthetics and a member of the American College of Anesthesiology.

the Salt Fork, July 25th. Fishing was the order of the afternoon, with a picnic dinner at 6:00 P.M., after which papers by Drs. Frank H. McGregor, Mangum; and T. D. Benjegerdes, Beaver, on 'Goiter' were heard."

"OKLAHOMA COUNTY COMMISSIONERS AND CITY MANAGER made a sensible and long step forward when they merged the county and city medical services into a coordinated system. The city will continue its dispensary, dispensary physicians being empowered to send needy cases to the County Hospital. A night physician will be maintained throughout the year. Dr. Basil Hayes was appointed County Physician and Dr. George Borecky was appointed field physician. . . ."

PHYSICIAN PLACEMENT

General Practice

William Z. Cook, Jr., M.D., 1614 Wolverton, Ardmore, Oklahoma, age 31, married, graduated from University of Oklahoma School of Medicine, 1955. Will be available July, 1958 upon completion of military service.

Albert Stanley Bailey, Jr., M.D., P.O. Box 1381, Westhampton Beach, L. I., New York, age 28, married, graduated from University of Oklahoma, 1955, presently in military service, will be available May, 1959.

Gladys Smith, M.D., 800 N.E. 13th, Oklahoma City, Oklahoma, single, graduated from University of Oklahoma School of Medicine, 1947, board qualified in Radiology and is interested in doing a combination of general practice and Radiology.

John D. Wise, Booneville, Arkansas, age 30, married, graduated from University of Arkansas, 1954, veteran, available immediately.

Gerald C. Zumwalt, M.D., 1701 Avenue P, Del Rio, Texas, age 27, married, graduated from University of Oklahoma, 1956, veteran, will be available July, 1959.

General Surgery

Duane H. Dougherty, M.D., 201 Avon Road, Tonawanda, New York, age 30, married, veteran, New York University 1953, board qualified, will be available July, 1958.

Ralph L. Hopp, M.D., 338 E. Kingsley, Ann Arbor, Michigan. Married, veteran, Board Certificate held in General Surgery. Graduated Indiana University, 1950, will be available July 1, 1958.

Internal Medicine

Robert Edward Weaver, M.D., 1133 West Frey Street, Stephenville, Texas, age 34, married, board certified in internal medicine, graduated from University of Pennsylvania School of Medicine, 1949, veteran, prefers to practice in or near a teaching center. Will be available August, 1958.

Psychiatry

C. Frank Knox, M.D., 1922 Northwood Apartments, Ann Arbor, Michigan, married, age 32, graduated from Washington University, St. Louis, Missouri, 1954, veteran, now completing a four years psychiatric residency, will be available June, 1959.

Thoracic and Cardiovascular Surgery

James L. Russell, M.D., Charity Hospital of La., New Orleans 12, La., age 30, veteran, graduated from University of St. Louis 1949, Board certified in General Surgery, Board qualified in Thoracic and Cardiovascular. Will be available August, 1958.

CLASSIFIED ADS

COMBINATION laboratory x-ray technician. Registered male, married, two children. Seven years experience, hospital and clinic. Desires to locate in Oklahoma City area. Write Key B, c/o The Journal, Oklahoma State Medical Association, Box 9696, Oklahoma City, Oklahoma.

OBSTETRICIAN-GYNECOLOGIST WANTED: Excellent opportunity, progressive 3 man group, community 30,000. Well established, complete clinic and hospital facilities. Board qualified. Equity interest without investment after probation. Write Key C, c/o The Journal Oklahoma State Medical Association, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

WANT TO BUY: Late model diathermy machine and small sterilizer. Write Key A, c/o The Journal, Oklahoma State Medical Association, Box 9696, Shartel Station, Oklahoma City, Oklahoma.

FOR SALE: Physicians equipment including 100 M.A. Westinghouse x-ray with fluoroscope. \$2,500.00. Will sell x-ray separately. Contact Bob Grundy, Grundy Rexall Drug, Comanche, Oklahoma.

75th ANNIVERSARY

Journal of the American Medical Association

It is a pleasure for *The Journal* of the Oklahoma State Medical Association to designate this issue as a tribute to the 75 years of leadership in medical journalism to the *Journal* of the American Medical Association. The articles and the quotations contained herein are reprints from the 75th Anniversary issue of the J.A.M.A. by permission of the editor, Doctor Austin Smith. The contributors, all men of distinction in their chosen fields, exhibit a concept of responsibility for total human welfare that should hearten the leaders of the medical profession in helping America to achieve it to the fullest extent possible. The only note of uncertainty in our partnership in progress is the absence of a contribution from a representative of Labor. If this reflects a lack of what it may take to work together, perhaps it will be the necessary impetus to acquire those things or that state of mind for both which will make this possible.

Partners in Progress

Of all the words used in everyday conversation few are more exciting than "progress." This eight-letter word does as much to excite the imagination as any other term, technical or otherwise. One may speak of miracle drugs, atom power, solar energy, and electronics, and audiences think of almost unbelievable developments—but often without any thrill of excitement. Let a speaker, however, mention the possibility of a review of what progress means to the members of an audience, and one can almost hear a stir of anticipation. Somehow this precipitates a train of thoughts that even the most conservative listener finds difficult to hold within nonfanciful bounds.

The Journal of the American Medical Association is now 75 years old, although in this modern age there is a temptation to use the words 75 years young. It is not four score years old, and yet more significant events have occurred during this time than, perhaps, in hundreds of preceding years. It makes no difference whether one thinks of engineering, medicine, law enforcement, or any other field; the changes that have occurred are so dramatic, so challenging, it is difficult to think of any corner of the earth, any phase of life, that is not being affected. And this is only the beginning. What is on the horizon seems even more fantastic to contemplate.

Most of us accept our modern miracles with little more than passing wonderment or sometimes momentary thankfulness. Often we do not understand; usually we do not appreciate. In fact, too often our eyes and our thoughts remain confined to our own fields of interest without realizing how much each field contributes to another, how much each is dependent on another, or how many people and how much training and experience are involved in the various areas of effort.

Elsewhere in this issue of *The Journal* are articles from acknowledged leaders in their fields. They are known internationally, and yet they can think in terms of the individual as well as of a nation or of the world. As one reads their writings, there grows a recognition and an appreciation of a fundamental fact: they are all partners in prog-

ress. No one could be a symbol for his field if he had stood alone or if his area of interest had been completely isolated from the rest of the community. They served their communities as well as their organizations or businesses and in so doing extended their influence throughout the country and even elsewhere in the world.

The practicing physician likewise serves more than his patient. He is part of community life, and his work influences as widely that of others as they in turn influence his work. No one can exist without the direct or indirect contributions of others, which is forcefully proved by the appearance of our guest contributors in the pages of this issue of *The Journal*. Physicians as well as our guests know this, but do others, especially those who are quicker with criticism than with thoughtful suggestion? Maybe the latter might be made candidates for the development of the theme "Partners in Progress." An explanation here, as example there, might be sufficient to change the misunderstanding critic into a helpful ally. If the people of the United States believe in the principles on which this nation was built, they must demonstrate a willingness to insist on the continuation of these principles. Leadership is necessary, but understanding is as important. Who can better provide the explanation and the examples than such men as our guest contributors and the many others who are acknowledged in their fields?

Writer, news commentator, industrialist, educator, name whom you will, are all partners in living in our country. This in itself engenders a depth of responsibility that is sobering, but when one remembers that much of the world today is looking for leadership, all of us must be mindful of additional responsibility as we work and play. Perhaps the people in some of the countries elsewhere might have had fewer problems if they had paused long enough in their work and play to encourage men and women to shake hands with each other as partners in orderly progress. Maybe there would be less fist shaking today.

Austin Smith, M.D.
Editor, *Journal of the American Medical Association*

THE WHITE HOUSE
WASHINGTON

April 9, 1958

Dear Dr. Smith:

It is a privilege to extend felicitations to the Journal of the American Medical Association on its 75th anniversary.

I have long been aware that the Journal has, throughout its lifetime, been a potent force for progress in the field of medical discovery and medical information. The contribution its editors make to medical advancement is reflected daily in better health for the people of this country and the world.

Throughout my lifetime of service in the Army, as well as in my present position, I have watched with pride and interest the giant strides that have been achieved toward a rising standard of health for people everywhere. The Journal of the American Medical Association has reported these advances faithfully, and its editors must share with me both a sense of deep accomplishment and the conviction that in the years to come the horizons are truly unlimited.

With best wishes to you and to the Journal,

Sincerely;

A handwritten signature in dark ink, appearing to read "Dwight D. Eisenhower", written in a cursive style.

Dr. Austin Smith
Editor
Journal of the American Medical Association
535 North Dearborn Street
Chicago 10, Illinois

MEDICINE *and* EDUCATION

HARLAN H. HATCHER

If one were to prepare a graph to illustrate the rise and fall in the fortunes of medicine and education in the United States since colonial times, he would find that the lines representing each could almost be superimposed, so similarly have these fields fared.

From the time that "Dr. Lambert Wilson, chirurgeon" taught the first medical students at Massachusetts Bay Colony, in 1639, until the modern debate over the role of the humanities in the education of all citizens, there have been noteworthy parallels between medicine and general education.

This is not unnatural for the success of an educational program can be measured by its products and their accomplishments. Abraham Flexner wrote in 1925 that "medical education cannot be described or discussed apart from general education. The maturity, previous training, and intellectual competency of the student body determine in advance the scope, quality, method, aims and outcome of the instruction offered by the medical faculty." It has even been argued that the strength and prestige of the medical profession through the years have been directly related to liberal content of the pre-medical programs.

Then, too, the ebb and flow of social, economic, and political forces during the history of the United States have affected both fields in similar ways.

Both education and medicine were largely dependent upon European achievements in the early colonial period. The apprenticeship system, with all its virtues and shortcomings, came from England. As the deficiencies of the system became recognized, the more ambitious students returned to Edinburgh, London, Paris or Leyden for their medical training. It is interesting to note that the "deficiencies" may well have included lack of

breadth, a problem with which educators still struggle today. The apprenticeship system served the colonies well during the 17th and 18th centuries, but the real advances in medicine came from abroad. "European-educated physicians had a certain knowledge that the apprenticed men were lacking," one observer noted.

Several excellent educational institutions were established in this era, and they have since grown into some of the ranking schools of the world. However, during this stage of their growth they were very frail and, for the most part, not very consequential institutions. They were classical, theological, and primarily for those who could afford them. The new nation was not to approach its educational potential for many decades after its creation.

As the United States expanded during the 1800's, medicine and education alike suffered acute growing pains. The outline of the continent was sketched in from coast to coast. The population curve was rising. There was a job to be done, and America was impatient to get on with it. Plato, Sophocles, Shakespeare, Spenser, Milton, Herodotus, and Gibbon obviously were of little value to people tilling a hemisphere and extracting its resources. Besides, this distinguished company was not for the common man—and they would take up valuable time. The physical sciences, applied to America's needs and developed into vocational techniques, seemed to be the answer. Like the camel in the parable, they put their nose in the tent, and the humanistic pilgrim was soon out in the desert.

The early medical schools, which had established standards and programs as rigorous as those in European universities, also gave way under the pressure of this materialistic philosophy. The growing nation required doctors, so the requirements for the M.D. degree

sagged. Medical schools sprang up independent of the universities. In many cases they were financed entirely by tuition and tended to become commercial enterprises. The quality of instruction varied; scholarly ideals were compromised and forgotten. One hundred years were to pass before the profession fully recovered.

The noxious proprietary schools mushroomed in answer to the demand for physicians. In 1800, there were four medical schools in the country; in 1860, there were 66; at the end of the 1800's there were 160. In little more than a century, the United States and Canada gave birth to 457 proprietary schools, most of which were short-lived.

"No applicant for instruction who could pay his fee or sign his note was turned down" for admission to these schools, Flexner said in his historic report. "The man who had settled his tuition bill was thus practically assured of his degree, whether he had regularly attended lectures or not. The school diploma itself was a license to practice."

It comes as no surprise that there was little if any room for college preparation in these brief programs, much less for those who had concentrated on the humanities. Medicine was taught as an art rather than as a science.

"A college education is one of the luxuries of life, never a necessity," one man wrote. "The only way to learn about disease is to take care of sick people," another observed.

And so the nation grew, with emphasis on the three R's and on the mass production of men ostensibly capable of reducing fevers, mending broken bones, and treating wounds.

To be sure, there were voices of protest. Thomas Jefferson, that amazing American with a restless and omnivorous mind and with unsurpassed vision and understanding, was among the first to point out the inadequacies and handicaps of the nation's cultural dependency upon Europe. He counted the establishment of the University of Virginia as his proudest moment.

A stronger voice was that of Ralph Waldo Emerson, who sounded his "Intellectual Dec-

laration of Independence" in 1837. "Perhaps the time is already come when . . . the sluggish intellect of this continent will look from under its iron lids, and fill the postponed expectations of the world with something better than the exertions of mechanical skill. Our day of dependence, our long apprenticeship to the learning of other lands, draws to a close. The millions around us that are rushing into life cannot always be fed with the sere remains of foreign harvests."

There were two important points in this statement. The first was that it was America's responsibility to make its own contribution to the fund of knowledge through scholarship. The second was the challenge for Americans not to be content with manipulative skills, not to be merchants and farmers and accountants, but to be informed and cultivated men and women who are also good mechanics, farmers, and accountants.

In the medical profession, other voices were heard. In 1847, the American Medical Association was founded to raise the standards of medical education on all fronts. Licensure requirements, abandoned for many decades were reinstated. At my own university, the president reported, in 1874, "An examination for admission was held (for students entering medicine). Though the requirements were very slight, it was found necessary to reject some of the applicants, whose ignorance was profound." In 1875, "more than a dozen rejections" were reported.

Others in the profession looked to liberal education for premedical students as means of improving the prestige of medicine, of facilitating its study, and of improving its practice.

"Every preceptor and professor knows how much better a young man with a liberal education can pursue his studies," a Pennsylvania physician wrote late in 1870, "and with how much more credit he will pass his final examination than the uneducated and untrained, other things being equalled."

These voices were not so loud as Emerson's, however, so it was not until the second decade of this century that medicine was to recover.

As it was, Emerson was not heeded until 1876, when Johns Hopkins University was founded. Breaking with the past, this institution was the first with European standards of advanced study in the arts and sciences. Other schools followed suit. With the advanced standards came increased emphasis on research, instead of passing along knowledge gained in Europe, American scholars began creating it.

Here we find the curve of general education swinging upward much earlier than that of medicine. The lag may be attributed largely to the fact that medical schools had sprung up independently of the universities and that even medical colleges of the universities were virtually separated from the parent institutions.

"Before that (the founding of an independent proprietary school in Baltimore early in the 18th century) a college of medicine had been a branch growing out of the living university trunk," Flexner wrote. "This organic connection guaranteed certain standards and ideals, modest enough at that time, but destined to a development which medical education could, as experience proved, ill afford to undergo. Even had the university relation been preserved, the precise requirements of the Philadelphia College (University of Pennsylvania) would not indeed have been permanently tenable. The rapid expansion of the country, with the inevitable decay of the apprentice system in consequence, must necessarily have lowered the terms of entrance upon the study. But for a time only: the requirements of medical education would then have slowly risen with the general increase in our educational resources. Medical education would have been part of the entire movement instead of an exception to it."

Separated from the universities and concentrating upon the production of students, medical institutions failed to recognize for 50 years the full potential of the scientific discoveries which began to flow out of the laboratories of Europe and America in the 1800's.

Once medicine became aware of the power of science, however, it could not be accused of

slighting it. In actuality, the reverse was true. Science became a religion to leading medical educators, and it tended to dominate medical training. It was only in the late 1920's that the humanities, arts, and social sciences won a significant place in the preparation of doctors. Some observers believe that medical education has become most effective since the introduction of the humanities and the lessening of the excessive emphasis on science and specialization.

Today, both medicine and education still suffer from the curse of practical demands. In medicine, scientific preparation still is heavily weighted; in general education, we provide the narrowest of training in a bewildering number of fields. There is the great danger that, in attempting to meet a multitude of special demands, American education has overextended itself. We have diversified so widely, we have produced such refined and isolated technicians, so many vocabularies and departmental jargons, that we cannot even communicate between faculties.

Yet it is difficult to take issue with the towering technological success our nation has enjoyed. Such success carries its own justification, but it also contains the seeds of its own inadequacies. We have done so much so well, and with such comparative ease, that we have made a philosophy out of our materialistic triumphs. We made ourselves believe that if we could improve our living standards, shorten hours and raise wages, lighten or do away with physical toil, and stay in isolation between our oceans and away from the wars, we would automatically reach our goal of human happiness as envisioned in the Declaration of Independence.

All these things were worthy and needed to be achieved, but they failed to include the larger dimensions of man's capacity. For we are not bound solely to earth and time, and we cannot fulfill our destiny solely with material things, with techniques and goods. Something significant, perhaps the key to the whole adventure, escapes this process and leaves us short of our high hopes. We have attained no peace or quiet among our perfected machines.

It is not uncommon these days to hear those who have been trained almost exclusively in the vocational or more specialized fields speak of the warping and even frustrating effects that have resulted from this overemphasis or this omission.

In essence, the external and technical process by which we have achieved our lofty position in the world has tended to rob us of the wisdom, the judgment, the spiritual resources and calmness of soul without which we may not understand the nature of our testing or meet it in our grave hour with success.

The sweep of our history, the perspective of our own moment in history, the instruments which we have forged to integrate our mutual lives, the great moments of vision and truth experienced by our finest souls and reported to us through the magic of literature—these things are as vital to our happy survival as the technology of modern industry. We have ignored or neglected them.

The greater our progress toward our materialistic goals, the more insistent and disconcerting have become the forebodings about the completeness of the result. Harsh experience is thus teaching us what the prophets of old and the wiser of our forefathers knew full well: that happiness may not be pursued as a goal within itself, that man does not live by bread alone, that neither will he perish by bombs alone.

I have no doubt that education and medicine will answer the immediate problems which confront them. The solutions will not come easily, but they will come. The larger worry and the larger concern for higher education in the American system lies in this other dimension of which I have spoken: a richer and more humanistic training that will enable our students to understand that the sole end of their education is not the mere manipulation of the gadgets that go with modern civilization or modern warfare.

And so general education and medicine have traversed a long path together, affecting, and affected by, each other. It is my hope that these partners will in the future pay

greater heed to the words of Emerson, despite the demands of the day: "We lie in the lap of immense intelligence, which makes us organs of its activity and receivers of its truth. . . . The lesson of life is to believe what the years and the centuries say against the hours; to resist the usurpation of particulars; to penetrate to their catholic sense."

It is that realm in our education and private contemplation with which we are not now sufficiently reckoning. But there are signs that we are beginning to learn of this mistake, so see where we have done well and where we have failed. This is essential if the oncoming generations are to exist harmoniously in the world which we have created for them and which they will have to manage and direct.

Harlan H. Hatcher

President of the University of Michigan

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MEDICINE AND AGRICULTURE

. . . For more than 25 years, we in agriculture have been experimenting with a variety of government programs designed to legislate prosperity into agriculture. These attempts to fix prices at profitable levels and to regulate the production of certain crops have largely failed. We have learned that economic forces cannot be denied by political action, as surpluses have piled up, substitute products have captured our markets, and farm prices and income have gone down. The American Farm Bureau favors policies "which will make it possible for farmers to earn and get a high per family real income in a manner which will preserve freedom and gradually eliminate government regulation of individual farming operations." In other words, we are as strongly opposed to a socialized agriculture as medical people are to socialized medicine. We are ready to cooperate to oppose both threats.

Charles B. Shuman

President, American Farm
Bureau Federation

DEDICATION

JOHN STEINBECK

The great critic Boileau said long ago that the only figures worthy of Literature are Kings, Gods, and heroes. For today we must substitute for heroes those people who break free of a constricting pattern, who overcome insuperable difficulties, or who with inner courage or gallantry or determination resist pressures or drive through opposition or difficulty to a desired end. These are the heroes of our time—even if they try desperately and fail—these, it seems to me are the raw material of Literature.

A wise and cynical friend of mine handicaps life as seven to five against. I think he is largely right, but when horses or men buck the odds and win—we have champions and we also have Literature. Perhaps also it reassures all of us that neither odds nor gods are all powerful.

I think I have a good example of this in the creation of a doctor. I have watched it happen year by year, and it makes me a little impatient with the despairing cries of lost or beat generations who lose before they have laid down a bet.

Next door to my little house in New York there is a newsstand and store so tiny that when two people go in at once they have to move sideways. It is run by a family named Spivack—Mr. and Mrs. Spivack and their son and their daughter. They sell newspapers and magazines, tobacco, candy bars, cards, string, soda, ice cream, paper clips, glue. The margin of profit is small—the hours incredibly long. At five in the morning the stand is open for the morning papers. At midnight it is still open for the late editions. It is closed only Sunday afternoons. That is 19 hours a day, and closing Sunday noon it makes 121 hours a week. One member of the family is on duty all of the time and two during rush hours.

In addition to the work, there is the family to maintain, an apartment to keep, meals to serve, beds to make, laundry, cleaning, social life.

Starting as customers, we have become friends of the Spivacks, and we have been privileged to observe a dogged, gallant undeviating miracle—for this family with the odds much higher against them than seven to five have created a doctor.

His mother says that Morty wanted to be a doctor from the beginning. There was never any defection toward cowboy, soldier, pilot. It was medicine from the beginning. Medicine was simply a fact, an inevitability. The family, the newsstand constituted itself a creative organism. Morty got good grades in high school, but that also was a fact of nature. He did his studying behind the counter between customers.

And then came the time for him to go to college—he went to Cornell. This meant, of course, longer hours for the remaining three except during vacations when Morty took his shift again with his textbooks behind the cash register. They gave him the slacker times when fewer customers interrupted his work.

Then an accident happened. The building changed hands, and the little store ceased to exist. The Spivacks moved their papers to the front of a butcher shop on Third Avenue and held on. It was over a year before they were able to move into another place next door to their old stand. But the process of creation continued uninterrupted. Morty went into premedicine, came home, studied behind the counter. The family functioned. The unit was unbroken.

When Morty graduated from Cornell with honors, it was not unusual. It was inevitable. When he entered Buffalo Medical School, there wasn't much time to sit behind the counter.

You can think of this family as a preset engine aimed at medicine, except that people are not engines. There were debts, worries, illnesses during which the remaining three had to carry 121 hours a week. Everything that happens to people happened to them, weariness, sadness, endless work, sickness—all the matters which stagger people and sometimes destroy them. They did not have to contend with neuroses. They hadn't time—unless you consider what they were doing a neurosis, which it probably is.

The family functioned—the apartment was kept and cleaned, meals cooked, social life, one step at a time, and the time forever. We have known the Spivacks quite a while now, and we have never heard a complaint nor a doubt—and as for self pity, who has time for it?

Recently Morty received his degree in medicine, head of his class, and was awarded A. O. A., and that's about as good as you can get, I guess. He will intern at a New York hospital in his long-ago chosen field of thoracic medicine. It isn't over of course. It never it, but the cards are down.

The family isn't exactly proud because they never doubted that it would be this way—odds or no odds. There's a glow in the newsstand, surely, but it opens at five in the morning and closes at midnight, and if there is any family celebration, it will have to be on a Sunday afternoon.

Perhaps after all the odds were not against the Spivacks. Given the unassailable determination of every unit of this family, an all-wise handicapper might have considered them 10 to 1 in favor. I doubt whether you could beat an outfit like that, short of bombing it. And that is Literature.

John Steinbeck
Author

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MEDICINE AND THE COMMUNITY

... The future will see even greater emphasis on disease prevention, maintenance of good health, and effective rehabilitation of the disabled. Technological advances, aided in great measure by new developments in electronics and atomic medicine, will reveal a multitude of facts concerning cardiovascular diseases, cancer, mental and nervous disorders, and various chronic ailments. An increasing proportion of medical services will be provided through clinics, medical centers, and various types of group practice. There will be interesting new developments in the design and operation of hospitals. Voluntary health insurance, if it is not destroyed by government ventures in compulsory health insurance, will solve the problem of medical care costs for all the people of the United States except the indigent. The latter, as always, will be taken care of by private and public charity, and it may be possible that plans for the indigent also will be financed on an insurance basis.

The future of American medicine is bright, if we can continue to work in an atmosphere of freedom, motivated by the dual spirit of enterprise and cooperation. The dominant socioeconomic challenge of the present is to preserve that atmosphere and that spirit.

Gunnar Gundersen
President of the American
Medical Association

AMERICAN CHEMICAL INDUSTRY

... Even so, the educational process does not stop when the sheepskin is framed and hung. There is no marking of time or pausing for breath for those people who intend to change things on this world. In chemistry, as in medicine, the "changers" provide something new, something of interest, each day, each week, each month.

A. P. Beutel
Vice-President of the Dow Chemical Company and General Manager of its Texas Division

SPORTS

K. L. WILSON

Seventy-five years, when regarded statistically as milestones in the career of an individual, an organization, or a publication, such as *The Journal*, suggest venerability and longevity. However, when viewed as a period of development in the many fields of human endeavor, it seems a very short span of time in which to account for so many remarkable accomplishments. Thus, in reviewing the past 75 years of activity in the field of sports, physical education, and recreation, one can only be amazed at the great changes and advancements which have taken place.

A few comparisons of present-day achievements and the standards existing before the turn of the century offer evidence of the tremendous progress effected in the past 75 years. Take swimming, for instance. The world mark for 1,500-meter event was then 29 minutes, 42 seconds; today it is officially recognized at 17 minutes, 52.9 seconds. The winning time at the Amateur Athletic Union (A.A.U.) 100-yard free style national championships in 1883 was 1 minute, 28 seconds, and the currently accepted world mark is 48.9 seconds, with scores of athletes breaking 58 seconds.

Almost every event in the bulky program for track and field competitors is subject to frequent revision in record performances, and comparisons with yesteryear seem ridiculous. High school athletes today, in average performance, surpass the standards which were earmarked as the best in the world 75 years ago.

For the 100-yard dash, the record then was 10.25 seconds; now it is 9.3. The time of 4 minutes, 30 seconds for the mile run was an eye-popper then; now the famed 4-minute mile has become almost commonplace, what with some 18 occasions on which that barrier

has been surpassed. A toss of 43 feet was tops in the shotput; now prep athletes can't score unless they hit that distance. Three men in the world have surpassed 60 ft., with the record now standing at 63 ft. 2 in. A jump of 5 ft. 8 in. in the high jump and 11 ft. in the pole vault appeared to be the acme in 1883. Today the world mark in the high jump is 7 ft. 1 1/4 in. and 15 ft. 9 3/4 in. in the pole vault.

Seventy-five years ago, baseball was rapidly becoming the national game. After years of controversy, there began to be some semblance of order in the National League and the American Association (which later became the American League). In 1887, the World Series was most unique—a 15-game schedule, one game in each of 15 cities! From this barnstorming tour resulted \$41,000 in receipts. Today the gross receipts from the sale of hot dogs, beer, soft drinks, peanuts, and popcorn alone will well exceed that total in just one World Series game.

Seventy-five years ago, football was just beginning to be advanced. It had been started in 1869, had had a stormy infancy, but was rapidly gaining in popularity in both the colleges and the high schools, although most of the play was confined to the Eastern colleges.

The ensuing years brought many of the star players from the East to the Midwestern and Southern schools, and these men quickly introduced the sport, acting as coaches, sometimes combining that assignment with that of actual participation as players. By 1905, however, the game had become so rough and dangerous that President Theodore Roosevelt issued an ultimatum that if such rough play was not immediately ruled out he would abolish the game. Corrective measures were promptly

taken, and the game of football spread like wildfire throughout the nation. With the introduction of the forward pass and with the little squad of players from Notre Dame that played the great Army team at West Point in 1913, two of the sport's great figures emerged — Gus Dorais and Knute Rockne. These two individuals demoralized the heavily favored Cadets with their forward passing tactics, and Army was beaten 35-13. This great victory lent courage to the small colleges and demonstrated that the forward pass was the "equalizer" which would aid them in competing successfully against larger schools.

Today, football, although it still experiences "growing pains" in some of its concepts, is the great fall sport adventure for millions of Americans who follow the fortunes of their favorite teams with exuberant interest. The speed and skill of the play, the quick reversals of advantage, and the colorful pageantry attendant to the game all have great appeal and vigorously express the American way of life.

It was in 1891, well after *The Journal* had begun publication, that Dr. James Naismith fastened two peach baskets on the rim of the gymnasium balcony at Springfield College and so started the game of basketball. Today, in excess of 100 million spectators are in annual attendance at basketball games throughout America, and the game actually is considered the "national sport" as far as total participation by individuals and teams, along with spectator attendance, is concerned.

Most remarkable in reviewing the past 75 years of sports activity in America is the development of athletic programs in the elementary and secondary schools. Where the adoption of one or more sports came slowly in the early years, and then speeded up during the golden '20's and boomed in the immediate post-World War II era, there now is a mushrooming growth of sports interest and participation so fast and so great that any previous pace seems slow and feeble.

Since 1950, the number of elementary and secondary school children has increased 8,167,000. At the beginning of the 1956-1957 school year, there were 7,820,000 boys and

girls registered in grades 9 through 12 in schools in the United States. This year, this total has jumped to 8,424,000—a one-year increase of 604,000 youths reaching the competitive sports age (8 to 18 years of age). The total U. S. school population (kindergarten through college) has grown from 41,366,000 to 43,135,000 for the 1957-1958 school year.

Increased school enrollments have forced many small United States schools to increase both interscholastic and intramural programs, particularly in the sports of basketball, football, tennis, track, and baseball. Nearly 500 million dollars in new facilities for athletics, physical education, and sports are now being constructed—an all-time high. Three-fourths of this plant expansion is in elementary schools, the remainder in secondary schools. In addition, there is an increase of competitive team sports on the junior high level in basketball, football, baseball, and track.

More students mean more sports on the school programs. Large schools are moving toward 30-sport programs, smaller schools toward 20. The biggest gains will be noticed in bowling, golf, wrestling, table tennis, roller skating, skiing, soccer, and tennis.

The phenomenal increase in the nation's 8-to-18-year-old population also has had its effect upon areas other than schools. Virtually every youth sports program initiated in the past five years on the teen-age level has boomed. Youth baseball has jumped from 500,000 participants during the summer vacation period to 2,200,000 last year. Midget football, junior golf and tennis, teen-age bowling, and many other youth activities are just starting to grow.

United States community recreation departments are becoming an increasingly important factor. More than 2,000 communities now boast year-round programs; 5,000 more have part-time schedules. Los Angeles, for instance, has a full-time recreation staff of 1,400 employees and operates over 50 recreation activities, with more than 35,000 youngsters playing youth baseball alone. The same is true of Milwaukee, Wis., San Francisco, Chicago, Houston, Texas, and dozens of other cities.

Winter sports activities also have felt this impact. Skiing, in particular, has never enjoyed so much popularity nor so much individual participation. Interest in skating has increased heavily, also.

There are many reasons why sport and recreational activities have increased so greatly and why standards of achievement in sports have continually risen to higher levels. Better equipment and facilities, of course, have been a great factor. So has the tremendous increase in youth sports-age population, and the resulting participation naturally has widened the base of competition. Public recognition of the athletic achievements also has acted as a spur, and new goals are sought continually as the youth react to the challenge and surpass existing standards.

The spotlight has been thrown on physical education and competitive athletics in a most dramatic fashion in the past two years by President Eisenhower. He appointed a group of experts from many different fields to urge that everything possible be done to encourage the youth of the United States to higher standards of health and competition. The President has pointed out that every opportunity should be afforded to the youth of the nation to participate in competitive sports, that we must not lose the competitive urge that helped make this nation what it is. Leaders in physical education and athletic training have been asked to enlarge their programs and to give training not only to the good athletes but to everyone who can be persuaded to take part.

The impact of this program already has been felt throughout the nation. Hundreds of towns and cities have expanded their schools and recreational facilities and are planning to institute programs where a youngster can compete in his own class. Not every boy can play football or basketball, but every boy and girl should have the opportunity and be encouraged to take part in competitive games of their own choice, where they can not only improve their health by beneficial exercises, but, at the same time, learn the importance of team play and sportsmanship.

Most important, and sometimes overlooked,

are the vital factors of improved training and coaching methods which have been aided greatly by medical research and, above all, medical supervision. Today, virtually all school athletic teams from junior high through college have a team physician. Practically no boy enters competitive sports, whether in park recreation contests, Golden Gloves boxing, Junior Olympics, or others, without his undergoing physical tests and having been pronounced able by medical authorities.

Proper diet now means something more than just a way of shedding weight. Every precaution is taken to safeguard the health and welfare of the athlete. Sports in America have made remarkable progress during the past 75 years, and thanks are due to the medical profession for the care and concern it has shown over these years.

K. L. "Tug" Wilson
Commissioner, Intercollegiate Conference
and President, U. S. Olympic Committee

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MEDICINE AND AVIATION

. . . The intimate relationship between medicine and aviation, however, is most dramatically demonstrated in the preparation we are making to take the tremendous step into outer space. We have, within our technological means, the vehicles in which movement in outer space can be achieved and the instruments through which it can be controlled.

We know that medical science, working hand in hand with technological engineers, can devise the means for adjusting the human being to the elements and the forces which are to be encountered in the progressive adventure into outer space. We know that man is inherently superior to his environment and that the providence which enables us to expand into those elements will enable us to produce the means of protecting human life within that environment.

Edward V. Rickenbacker
Chairman of the Board,
Eastern Air Lines, Inc.

ENGINEERING

... The bogey of ill-health is turning out to be largely nutritional; what's called "disease" is just becoming to be recognized as this or that chemical defect, bound to be chemically reversible when the given defect is spotted.

At the same time, the lack of certain key chemicals—vitamins, hormones, minerals, proteins, and others—cuts across the troubles of almost every patient that comes into a doctor's office.

Why are we the healthiest country in the world? In the first place, let's face it, we could be a lot healthier. And in the next place, our family doctors, when they graduate and kick free of the word and formula jungle of their education, are pretty ingenious fellows. The family doctor, wanting to cure sick people, still manages to take what's useful to him, even if he doesn't know its chemical formula.

We ourselves have been fooled by big words that hide the simplest, most fundamental facts. We've spent a great many years on the study of the growth of plants, because that's the whole story of solar energy. Plants have the ability to trap energy from the sun and hold it. That's the way we get our food and fuel and our living and everything else. We hadn't the slightest idea of how it was done. But we did know we could find out if we could do it the way the plant wants to do it—instead of the way we think we ought to do it.

Originally, we thought the plant's great trick was its possession of chlorophyll. We thought we'd made our problem simple by naming the project: "Why is the grass green?" Chemists put on a big drive to discover the chemical structure of this chlorophyll. They solved it, but it didn't give us the answer to how the plants trapped the sun's energy. We looked in the dictionary and found chlorophyll was just the Greek word for green leaf, and we found we didn't know any more about it in Greek than in English.

You'd be amazed at how many things—especially in medicine—are only a Greek or Latin synonym. When we'd dug down beneath that big word, chlorophyll, we found that the supposed mystery of the sun transforming its energy into life turned out to be a rather simple chemical gimmick—the partial reduction of the carbon dioxide in the atmosphere.

A final word on formal education of which we're so proud as the cause of the glory not only of medicine but of all our professions, engineering included. This is what's supposed to be responsible for progress. But real progress is made by those who are quite different from educated people. Facing an inscrutable disease, the men who make progress do so because they tend to throw statistics out the window and start with simple reasoning. They've shaken themselves free of a simple bogey:

From the time kids start kindergarten right on through the time they're examined in medical school several times each year, if they flunk it's considered terrible by the teachers. But an inventor or a researcher or clinical investigator can fail 999 times, and if he succeeds once, he is in. That's the difference between education on the one hand and the invention and research that mean real progress on the other. Our young fellows in the schools get so afraid of that word, failure, that they're scared to start out on their own on anything new.

It would be wonderful if some medical school would install an experimental course where the boys would be taught to fail intelligently. The point is that all schools should teach the simple principles that lead to progress. Just as in industry a successful concern is one that best serves the needs of its customers, so a successful researcher is one who runs errands for the project. And a successful doctor? A real doctor is one who serves his patients.

Charles F. Kettering
Research Consultant and Director
General Motors Corporation

NEWS COMMUNICATIONS

. . . We newspeople had a chance to check up on our own effectiveness in the medical area back in 1948, and I think the figures deserve mention here. On April 29, 1948, ABC radio presented a public affairs documentary, accurately titled, "VD: A Conspiracy of Silence." Breaking a major taboo—with, I admit, some trepidation—we did a program frankly aimed at locating infected individuals, persuading them to come to the clinics, and detailing new, highly successful treatment for venereal diseases. Then we ran a survey on our results.

One clinic we spot-checked reported that 25% of the people who came to it in the following weeks learned of it through our broadcast. In one state, 20,000 cases of syphilis were discovered and cured as a result of "VD: A Conspiracy of Silence."

The revolution in the nation's thinking on mental illness can, I think, be credited in great degree to the mass media. A torrent of newspaper, magazine, radio, and television pieces on mental disturbances have brought us, at belated last, to the civilized realization that insanity is an illness, to be regarded, treated, and, increasingly, cured as such.

The point needn't be labored; examples are legion—cancer, alcoholism, heart disease. It could even be argued that, in the complex and highly septic civilization we have evolved today, if there were no such thing as a news industry the medical profession would have to invent it.

Similarly, this continuing coverage has done an enormous public relations job for the medical profession itself. The "Medical Horizons" series took viewers inside dozens of hospitals, even inside operating rooms themselves; it is hoped that the program had the effect of making both doctors and medicine more comprehensible and less fearsome to the audience. All the networks, all the news media, have contributed to this vital understanding.

Now, I was asked to write a piece on the benefits that news confers on the world of medicine. I cannot end, however, without fervently thanking the medical profession for the one triumph without which the news business as I know it could not exist. News-men, of course, have trekked into the most toxic jungles with impunity, shot full of quinacrine (Atabrine). We've wriggled casually across the rusted barbed wire of a hundred war fronts, our blood streams aswarm with invincible tetanus antibodies. We've talked our way through fire, flood, invasion, whatever the Four Horsemen could throw at us, protected only by a press card, an assured manner, and the miracles of modern medicine. But none of this is what I'm talking about.

The triumph I refer to is a miracle drug in the finest sense of the phrase. On its timely appearance in 1899 the entire towering structure of news today depends. Without it the news fraternity would long since have distributed itself in about equal numbers among the less expensive sanitariums, the foreign legion, and the grave.

I mean, of course, aspirin.

John Daly, Vice-President in charge of News, Special Events, Sports, and Public Affairs, American Broadcasting Company

FILM ENTERTAINMENT AND COMMUNITY LIFE

. . . *"Science Will Never Destroy Myth"*

I do not mean to disparage the best in human drama, in myth and timeless fairytale, in stirring legend and heroic adventure. These will never be diminished. The human spirit needs them in every age. Spiritual health requires them.

Walt Disney
Executive Producer and Chairman
of the Board of Walt Disney Productions

MEDICINE AND COMMUNICATION

. . . At the time that *The Journal* was born, and for years before, the gap between discovery and communication was tragically wide. Early in the 1860's, for example, Pasteur announced his discovery that microbes could cause the spoiling of meat. We know now that the German physiologist, Theodor Schwann, had made exactly the same discovery a generation earlier, in 1836. This lack of adequate communication within professional circles meant needlessly repeated experimentings and gropings toward knowledge already arrived at and long since demonstrated. It meant that the point of departure of one scientist was far behind the point of arrival of another. It meant that, instead of building on what was already known, scientists spent precious years in rediscovery.

It meant, also, life-wasting delays in the broad application of new cures and preventives to diseases that contributed heavily to the mortality toll everywhere. The death rate from typhoid in 1896, the year that Sir Almoth Wright introduced the inoculation, was 28.3 per 100,000 in the state of Massachusetts, and two years later it had been reduced only to 24.7. On the other hand, in 1954, the year that the Salk vaccine for poliomyelitis was introduced, the death rate for that disease was 0.08, and by 1956 it was cut in half.

As a corrective agency in all this, *The Journal* began where it should have begun and where the need was greatest: in reporting to the entire medical profession in America the major developments in medicine, not only here but all over the world. I do not see how it is possible to over-emphasize this function of professional journalism. Without it, the uncertain dissemination of knowledge from the scientists to the general practitioner would be inconceivably wasteful in its slowness and vagueness.

Today communications within the medical profession are constantly improving. The profession has moved with speed and wisdom in adapting new communications techniques to its special problems and opportunities. In 1953-1954, the American Can-

cer Society joined with Columbia Broadcasting System (CBS) in a series of 20 closed-circuit color television programs, in seven cities, called the Physicians' Conference on Cancer. The programs were professional seminars, lasting over an hour and a half each, discussing and demonstrating diagnostic, surgical, and medical techniques in the discovery and treatment of cancer. Physicians in seven cities, far too busy to leave their practices to go to distant cities for clinical studies, were able simultaneously to consult with top specialists, to see the progress of treatment of actual cases, to witness operations. Today television recordings of the series are being used in medical schools and hospitals as a teaching aid, making it possible for all medical training centers to share the talents and inspirations of one another's great teachers, surgeons, diagnosticians, and researchers.

Frank Stanton
President, Columbia Broadcasting
System, Inc.

PROGRESS FOR THE BENEFIT OF ALL

. . . Law enforcement and the medical profession are more closely allied now than ever before in terms of promoting the public welfare and exerting an influence for good within the community. Together, we subscribe to standards of service which are a challenge to those around us. Individually, our members have proved to be an example and an inspiration for the younger generation to follow.

We in law enforcement today are indebted to the medical profession. During this century of unparalleled progress, we have adopted not only the respect for science but also the personal determination and standards of service which traditionally have characterized the medical profession. I can think of no finer means of our expressing appreciation for these "borrowed" qualities than to use them as a doctor would—for the benefit of all.

John Edgar Hoover
Director of the
Federal Bureau of Investigation
United States Department of Justice

WHAT DOES THE DOCTOR DO? MUCH

WHAT DOES THE PATIENT WANT? MORE

. . . Never, since the initial discussions of it, has socialized medicine had so little appeal in the United States. This is due in part to the depressing reports emanating from European lands where such practice is common, but in much larger part to the eminently satisfactory experience Americans have and have had with medicine in their own country. This satisfaction, it should be noted, does not go quite so far as to embrace the cost of medical care, because, even with the advent of such organizations as Blue Cross and Blue Shield, American families find the cost of medicine, particularly in the realms of surgery and chronic illness, almost more than they can cope with. But they will cope, in preference to having the federal government participate.

Confidence in medicine is such that the average American family anticipates without any reservation the discovery within the next decade of specific cures for cancer. It might be pointed out, in this area, that, though the general public recognizes the need for constant warning against reported discoveries, it is not always convinced that such extreme caution as exists is altogether justified. As long as quacks are properly disposed of—and the public naively assumes that exposure is quick and sure—there is a conviction that advances in the treatment of cancer should be reported more fully and even more optimistically in the lay press. The public's attitude is, "What is wrong with hope?" and, "Who is harmed by it?"

It should not surprise the leaders of medicine to hear that fear of mental illness is beginning to approximate the fear of cancer. The continuing campaigns to bring about more hospital facilities for treatment of the mentally disturbed, coupled naturally enough with repeated publication of the almost unbelievable number of persons requiring treatment, have brought into being a complexity that simply did not exist in the average mind at the beginning of the cen-

tury. "But American medicine will take care of it!" "Already we have dozens of different tranquilizers that are helping to do the job!" Such is the course of the thinking of Americans—of practically all of them.

As I have indicated already, doctors have given the people a greater life span—more time for themselves. What do the people, the "consumers" of medicine, want now? They want more of the doctor's time! It is their one, their only, to all intents and purposes their exclusive, important complaint: "Doctors are too busy; we are no sooner ushered into their offices than we are ushered out; we'd like to talk more, to tell them more; we'd like them to explain more; to listen more."

It is an interesting commentary, but medicine has brought this on itself. Perhaps it is part of the penalty of the faith medicine has engendered. It is, in any event, not a cheerless penalty. Most other professions would suffer it gladly.

Herbert R. Mayes
Editor of *Good Housekeeping*

THE DOCTOR AND THE AUTOMOBILE MANUFACTURER

. . . One of those who thought about this was the late Dr. John J. Prendergast, medical director of Chrysler. Dr. Prendergast got to wondering about the ability of people who had recovered from tuberculosis to perform satisfactory work. With the support of Chrysler management, he embarked in 1938 on a program to make chest x-rays of new employees. He added to his staff an expert on internal medicine and pulmonary diseases, Dr. Marion W. Jocz, and arranged for the assistance of a leading x-ray expert, Dr. Carl C. Birkelo.

During a five-year period, more than 300,000 physical examinations, including chest x-rays, were made by Chrysler doctors. Altogether, more than 3,000 persons

were found to have active or inactive pulmonary lesions—many of them being unaware of this until they applied for work in Chrysler plants or reported for a physical examination after an absence from work due to illness.

Out of these studies came a number of conclusions important to the automobile industry and to the medical profession as well. Among them, for example, was the knowledge that employment of persons with certain types of inactive pulmonary tuberculosis lesions is practicable. As the doctors said in their formal report, "the usual conditions of employment in a highly mechanized industry do not constitute a threat to the health of such persons or to their fellow employees," and "the work record of these persons appears to be as good as that of other groups of physically substandard employees."

The formal results of this program were not published until 1948, but preliminary findings proved of immense value to the automobile industry during World War II. Young, physically fit men were entering the armed forces, and most applicants for employment in the plants were those unsuited for service because of age or because of various physical and other defects. Applying knowledge gained in the tuberculosis study, the doctors found that many people who in the past might have been denied work because of "physical handicap" could perform excellent work if they were assigned to an appropriate job. A man who could not see well close-up would not be suited for an inspector's job, but he might handle a jitney with great expertness. A man who could not do heavy lifting could operate an automatic machine or run a power lift. As Dr. Max Burnell of General Motors has said, automobile industry doctors concluded that "everyone is handicapped for some kind of work."

L. L. Colbert
President of the Chrysler Corporation

LIFE INSURANCE AND THE MEDICAL PROFESSION

. . . At the end of 1957, the number of persons estimated to have some protection against hospital expense was 123 million—probably more than the number covered by life insurance on that date. A year earlier, the figure was 116 million, but in 1940 only about 12 million were so protected. With some duplication, in 1956, 101 million were covered by surgical expense insurance (only 3 million in 1940) and 33 million were insured against loss of income resulting from sickness or accident. All of these persons are protected by private plans, furnished by private American enterprise.

In view of the great number of persons covered by these forms of insurance and particularly in view of the rapid rate of growth, there would seem to be little justification for a revival of plans for government to enter these fields. If that should come to pass, the socialization of medicine might well follow. We have only to look at England, or at Ontario, Canada, to see what could happen here. On Jan. 1, 1959, residents of Ontario will be covered by a compulsory plan of hospital care insurance. If they want ward care, they must get it under the government plan and not through the private insurance companies; these are to be limited to providing insurance covering the difference between ward care and private or semiprivate accommodations and certain other benefits. Surely the medical profession shares with the life insurance business the desire and, indeed, the duty to do all that is reasonably possible to prevent this sort of government expansion and interference; it could lead to government control of insurance and medicine.

In the future, as in the past, the medical profession and the life insurance business will continue to be closely allied; both will continue along the paths of dedicated service to the American people.

Frederic W. Ecker
President of the Metropolitan
Life Insurance Company

GOOD MEDICINE FOR INDUSTRY

... There is another relationship between industry and medicine that has grown rapidly in the last two decades. I am told that over 100 million people in the United States now have some form of prepaid hospitalization insurance. Prepaid coverage of other aspects of medical care has also been growing rapidly. A significant majority of this represents coverage through industrial group insurance plans. In most of these plans industry pays a part, usually half, of the cost. This is true in my company, where the group insurance plans are designed on the 50-50 principle. Last year, employees of this company or their families received \$32,400,000 for benefits other than life insurance under these plans, and a major portion of this amount was directly related to doctor and hospital bills.

One can foresee an increasingly close relationship between medicine and industry. New technology will produce new potential health hazards that will need to be evaluated and controlled. But perhaps even more significant is the recognition of the importance of the individual in the production scene. Not only is physical well-being important to full, individual productivity, but mental health as well. We are aware of the impact of emotions on safety and production and of the problems that interpersonal relationships in industry can produce. Doctors are unique in that their entire career is devoted to the study of the individual. One of the functions of the physician is to assist his patient in understanding himself and his relationship to others, in understanding his motivations and his reactions to his environment. The physician is a logical source to turn to for assistance in the search for mental health in industry.

Industry also needs from the medical scientists knowledge of the degenerative diseases and cancer, which daily take their toll at all levels in the industrial structure. Superb progress has been made in the prevention and treatment of infectious diseases. But the coronary attack continues to fell men whose talents and experience are so valuable. It is the fond hope of all that we

will one day understand these processes and know how to prevent them. This hope is supported by the great strides in medical knowledge in the recent past.

This progress augurs well for the future and points to an increasingly close relationship between industry and medicine. We should see to it that such relationships carry full recognition of the dignity of the individual, and have as their single goal the health and well-being of industrial America.

Roger M. Blough
Chairman of the Board of the
United States Steel Corporation

MEDICINE SERVES THE COMMUNITY

... On being asked to contribute an article for this 75th anniversary issue of *The Journal* of the American Medical Association, I at first had some doubts. What, I thought, does a merchant have to say to men who are devoting their lives and their energies to medical science? Have the two fields, medicine and merchandising, shown any parallel development in the past three-quarters of a century? Is there any common ground, any valid basis for comparing the two fields?

In seeking answers to these questions, I soon sensed that we do indeed have at least two important circumstances in common: 1. Each of our fields is concerned with serving basic human needs. People expect us to be there when they need us, and they count on us both to supply whatever they may require at any given time. 2. In medicine, as well as in merchandising, the past 75 years have been great years, highly significant in the far-reaching developments that they have brought.

Fowler B. McConnell
Chairman of the Board,
Sears, Roebuck & Co.

MEDICINE AND THE LEGAL PROFESSION

. . . Certainly in this area of scientific development, the great medical profession need bow to no one. Over the past 20 or 30 years medical contributions to the health and welfare of our people through careful research have been magnificent. That this is true is clearly evidenced by the fact that miracle drugs, lifesaving vaccines, and new types of equipment have become household words even for the man on the street.

However, in this anxious, hurried era in which we live, no profession can be satisfied to make its advance solely in the area of the physical and the material—men who are dedicated to public service must go further and insure that our respective professions make equal progress in the area of human relations and social development. For certain it is that the most difficult problems confronting mankind are in the realm of

human behavior. Doctors, lawyers, educators, ministers, sociologists—all must pool their resources and their experience to work out the best solutions for the benefit of the public.

The medical profession has a magnificent record of achievement. Its contributions to the over-all welfare of the community are acknowledged by man in every field of activity. But this great past record increases its responsibility for future service, for the public has become dependent on its leadership. The challenge is clear, and it exists for all professions dedicated to public service. We in the legal profession are ready and look forward to joining with members of the medical profession in continued and expanded joint effort for the advancement of the welfare of the nation and of the world.

Charles S. Rhyne
President of the American Bar Association

The Twenty-Eighth Annual Conference

of the

OKLAHOMA CITY CLINICAL SOCIETY

October 27, 28, 29, 1958

Biltmore Hotel

Oklahoma City

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REPORT *from* DEAN EVERETT

During the year improvement in the organization of medical center institutions continued with emphasis on relations of the University Hospitals to the teaching programs, and the development of instruction at the Veterans Administration Hospital.

The School of Medicine Departments of Pathology and Pediatrics were reorganized, and those of Dermatology and Otorhynolaryngology were strengthened. Certain minor courses in the clinical years were consolidated with major courses to improve the evaluation of medical students. There were about 250 applicants for the entering medical class. Selections were made by the Admissions Board after interviewing all applicants that met minimal requirements. The methods of interviewing were improved. The graduating class established a high record of first choice appointments to internships.

The medical school teaching program was assisted by 16 training grants awarded by the Kellogg Foundation, the National Institutes of Health, and several state agencies. The grants were to improve instruction in arthritis, biostatistics, cancer, heart disease, neurology, pediatrics, physical therapy, preventive medicine, psychiatry and surgery. This financial assistance (approximately a quarter million dollars) was developed through the initiative of faculty members who conduct the programs. The National Fund for Medical Education and the American Medical Education Fund continued their unrestricted support, and the former gave an additional grant to evaluate the curriculum of the School of Medicine.

Approximately 100 residents and interns were enrolled in clinical graduate training programs. Progress was made in the integration of residencies with the affiliated hospitals, particularly with the Veterans Administration Hospital. A record office for residents was established to assist the clinical departments.

A serious need for graduate assistant stipends remained unsolved, but 59 graduate students enrolled in basic sciences Graduate College programs at the medical center, and seven Ph.D. degrees and five M.Sc. degrees were awarded.

Seven major postgraduate courses and a series of ten shorter courses for physicians were held at the medical center. More than 1,400 physicians (including 167 from other states) registered, representing an eight per cent increase over the past year. The postgraduate courses had the complete support of the clinical departments. Members of the basic science departments participated in a new training program for house physicians at Hillcrest Hospital, Tulsa.

Research in the medical center increased steadily in numbers of projects, personnel, and grants received (largely from private foundations, voluntary health organizations, and the National Institutes of Health). The Research Committee of the School of Medicine assisted in developing a special medical center section of the *Oklahoma State Medical Journal* to portray research interests and accomplishments at the Medical Center. The need for additional laboratory space has become crucial. While the school was fortunate in receiving \$400,000 con-

struction grant from the National Institutes of Health for this purpose, the state has not provided the necessary matching money to date, and the grant will lapse in February 1959.

The School of Nursing initiated its new baccalaureate program for nurses having certificates, and the W. K. Kellogg Foundation made a generous grant for the development of this program over a five year period. A director of the program was secured. Some progress was made in securing members of the faculty with specialized qualifications, but low salaries continued to pose a problem. Present plans include seeking a grant to improve instruction in psychiatric nursing. The number of students interested in the baccalaureate program increased. During the year the teachers from the nursing service of the University Hospitals were included in the clinical faculty. Plans are being made to incorporate the records of student nurses into a medical center record office.

The School of Physical Therapy, established in 1954, has had 21 graduates to date. The number of applicants is increasing. Two teaching grants have helped in the development of this school.

Brevity prevents reports on other technical schools, but there were almost 2,000 students enrolled in the various medical center programs during the year. Serious consideration needs to be given to providing the students with housing, eating, and recreational facilities as at other colleges and universities.

At the University Hospitals, after months of delay required to complete arrangements with professional groups and state agencies, a 30 bed unit was reopened in May for the care of children who are clients of the Department of Public Welfare. An additional operating room for this service was developed with the aid of grants from the Oklahoma Commission for Crippled Children and the Oklahoma Society for Crippled Children. An assistant superintendent was placed at Children's Memorial Hospital to coordinate activities there. Plans are un-

der way to provide the much needed clinical laboratory at that hospital.

During the year the director of the Social Service Department of the University Hospitals arranged 37 conferences with county commissioners, welfare personnel, and health officers in cities and towns throughout the State. These meetings helped to dispel a widespread lack of knowledge concerning the obligations and limitations of the University Hospitals in the field of medical care. It is planned to continue such information through the county medical societies.

The hospital addition under construction will provide space necessary for the Department of Radiology. The Donner Foundation has contributed equipment for super-voltage cancer therapy. The isotope laboratory has been incorporated into the department. There is a major problem ahead to replace the hospital's outmoded and deteriorated general x-ray equipment. The top floor of the new addition will provide laboratories and quarters for several clinical services.

During the year progress was made in correlating the work of the clinical departments of the School of Medicine with that of the general hospital services, but much remains to be done to modernize future medical center operation. Facilities at the University Hospitals need improvement and expansion to meet the needs of the clinical departments. The recent Governor's Committee on the Medical Center recognized this requirement and recommended construction of a new large hospital unit to connect the two existing hospitals. Other buildings planned to correct serious deficiencies include the research laboratory, a warehouse (for efficient purchasing and storage), modern animal quarters, student housing, and a postgraduate center, together with land acquisition.

Most important for the immediate future are measures to increase the present unfavorable salary levels for faculty and employees, and a method of assuring a realistic and stable income for the University Hospitals.—Mark R. Everett, *Dean*

DELAYED NECROPSIES *of Historical Interest**

ALLAN A. KATZBERG, Ph.D.

"The pursuit of any branch of knowledge for its own sake does not need justification."—Herbert Williams

The ever restless mind of the paleobiologist often probes about in the most unexpected places. Not satisfied with the study of mere contemporary living material, it attempts to wrest secrets from the long gone past. Thus we may find on one hand a paleobiochemist who has extracted certain amino acids from fossil materials dating back 500,000,000 years, while on the other hand a paleoserologist has been able to obtain definitive serologic reactions of blood types in the skeletal remains of humans of 10,000 years ago.¹

The term *paleopathology* was coined by Ruffer² in 1913 and it was defined as the science of disease which can be demonstrated in human and animal remains of ancient times. This science has proven not only fascinating but it also offers some hope that it might help to explain certain modern diseases and perhaps also trace back certain infections to their point of origin.

Just where in time it would be best to begin this study is not easy to define, nor is it important, and so we shall progress from relatively recent times toward the more ancient eras.

As a beginning let us spend a few moments as we consider the interesting case of John Paul Jones,^{3, 11} the man that we remember as the founder of the United States Navy. A Scotsman by birth, he "fit the red-coats" during our revolutionary war from the decks of the *Bonhomme Richard*, a French East Indiaman. After our independence was achieved, he asked Congress to remunerate him for certain prizes which he had seized on the high seas. The argument

THE AUTHOR

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that he received reminds us of the one issued by the bourgermeister of Hamlin to the Pied Piper. So John Paul left in a huff, sailed for Europe, and never saw the United States again. In time he even became an admiral of the Russian Navy. His insatiable "joie de vie" took its toll on youth and health. He settled in Paris, developed nephritis, which was complicated by an earlier siege of pneumonia, and he died in 1792 at the age of 45. His body was embalmed in alcohol and placed in a coffin of lead.

One hundred and thirteen years later, in 1905, his grave was found and his remains resurrected. Some patriotic Americans, plagued by pangs of conscience, imported his remains to this country under escort of U. S. warships and, in an impressive ceremony at Annapolis Naval Academy, his body was placed on two wooden sawhorses where it remained for the next seven years. Of course prior to his departure from France careful identification was made. On opening the casket a heavy bouquet of alcohol, well aged in lead for 113 years, greeted the nostrils of the investigators. The facial features were almost unchanged when compared to a bust sculptured of him in life. The internal organs were well preserved. The left lung showed scars from a siege of pneumonia three years prior to his death. The liver was normal though a little shrunken. The spleen was large and firm. Histological examination showed that the stria-

*Excerpts from seminar entitled "What My Mummy Done Ptolemy" presented before the Department of Anatomy.

tions of cardiac muscle were preserved while hepatic cells had deteriorated. The blood vessels of the kidneys were sclerotic and glomeruli were partly fibrosed. Bacteria were present in the liver and kidneys. A diagnosis of chronic interstitial nephritis was made and this was consistent with history in that he had dropsy for a week prior to his death. While this is often stated to be the most delayed autopsy that was ever performed, the literature indicates some that even exceed this period.

Another interesting case is that of Don Francisco Pizzaro,¹¹ whose remains were exhumed in 1891 on the three hundred and fiftieth anniversary of his assassination in Lima, Peru. Although no embalming had been done, many of the tissues of muscles, tendons, blood vessels, as well as the right eye were identifiable. The visceral organs were very deteriorated. The stab wounds which caused his death were located on the right side of the neck.

Skeletons of the Swedish stone age dating to 2000 B. C. up to the relatively recent Viking period of 1000 A. D. have been studied.¹¹ The state of preservation of these skeletons was very good especially where interment had been carried out in dry gravel beds.

King Olav Gierstadaalv of the Icelandic tradition of the 9th century had been described in life as a tall man with a diseased leg. A great mound built at his direction yielded a tall skeleton with one foot and knee badly deformed by rheumatoid arthritis.

While no soft tissues of these Norsemen survived, articular cartilages were well preserved and even included remnants of chondrocytes in the lacunae. Histochemical studies made by staining with toluidine blue produced the typical metachromasia associated with cartilage and the presence of polyester sulfates. The bone marrow showed some cellular elements of the hemopoietic series. The haversian system showed blood vessels with only the intima missing and still containing red and white blood cells. In the bony matrix osteocytes and canaliculi were discernable. Decalcified bone showed col-

lagen bundles in the typical pattern. No relationship between the degree of preservation and historical age could be established.

These long delayed necropsies have revealed a great variety of ailments and injuries as well as a variety of attempts at treatment. Cases of cretinism, hydrocephalus, rickets, arthritis, osteoporosis, and ankylosis have been identified. Some evidence would place the presence of syphilis in Gallo Roman times. This of course is quite contrary to the general consensus that this was a disease which originated in the Western Hemisphere. Fractures, imbedded flint arrowheads, and cases of death by strangulation have been found, as have bandages on Peruvian heads and splints on Egyptian limbs. The description of the bodies of 100 men executed by hanging in Nubia in Roman times showed a variety of terminal results.

Trephening, believed to help evil spirits escape and so cure such ailments as epilepsy, insanity, and ordinary headaches, was practiced with marked success in Peru, that is, success at least as far as surgical skill was concerned. Skulls have been found with gold plates healed in position; however, cotton sutures have been found in the scalps of bungled jobs.

Evidence of parasitic infections has been observed. Trichinosis was seen in Egyptian embalmed cats as well as in humans. Schistosomiasis was common in the Egypt of 1250 B. C. as was small pox, while polio was traced back as long as 3400 B. C. Evidence of tuberculosis in Egypt was found in mummies of 2700 B. C. Lung ailments also included anthracosis, silicosis, and emphysema. Bone diseases such as osteoporosis and osteomas were not rare. Dental caries were very common. Blood vascular diseases as arteriosclerosis also sped many an Egyptian to the vats of the embalmer. On the other hand, rickets seem to have been rare. Gram negative bacilli were found in abscesses and in the case of a Greek mummy, a bacillus resembling that of plague was harboured in the lungs.

Other organic ailments diagnosed were prolapses of the rectum, intestine, and va-

gina, and cases of appendicitis, cirrhosis of the liver, gall stones, and renal calculi.

Of special interest to obstetricians is the case of the young Princess Hehenit of the Dynasty, who died in childbirth. The difficult labor produced by a narrow pelvis caused a vesicovaginal fistula and thus her death. Another mummy from a Coptic cemetery was that of a negress who died in childbirth and showed the infant's head firmly wedged in the narrowed pelvis.

The method employed in embalming had much to do with the preservation of the histological architecture of the soft tissues. In the early predynastic Egyptian period 5500 years ago, drying was the principle method. Later as more skilled type of funeral directors evolved all the latest accessories and innovations were provided. Generally the brain was aspirated through a tube forced up the nose and through the cribriform plate. All the viscera except the heart was removed from the body via an abdominal incision and buried with the body in a special canopic jar or chest. The body was soaked in brine for some 70 days, the abdominal cavity filled with cloth, mud, sawdust, or plain rubbish, and then wrapped in linen bandages.

Peruvian mummies for the most part were preserved by drying either cum or sans viscera, generally cum. The principle preservatives employed were Balsam of Peru, menthol, salt, tannin, alkaloids, saponins, cinnamic acid, and various resins, but chiefly the dry atmosphere.

The major difficulty encountered in paleohistology is the preparation of sections suitable for microscopy of tissues that had become hard, dry, and often very brittle. The first studies were done by Czermack in 1852. He placed tissues of Egyptian mummies in caustic soda and teased them out sufficiently to leave behind some drawings for the perusal of posterity.

Wilder in 1904 softened tissues with a 1 to 3% caustic potash solution and then checked the process by transference to 3% formalin. Shattock (1909) made frozen sections of Pharaoh Merneptah and demonstrated calcareous changes. Ruffer^{7,8} pio-

neered with modern histological techniques on such material. He softened the brittle tissues in sodium carbonate.

Wilson (1927) used Ruffer's technique on the dessicated remains of basket makers of early America. Shaw (1938) employed modern staining methods to the canopic remains of 18th Dynasty mummies. Graf in 1949² used 1.2% saline solution followed by 4% formalin and found that connective tissue stains produced best results.

A. T. Sandison (1955)¹⁰ had marked success in preparing tissues that have usually turned dark brown or even black and very brittle. He placed it in a softening fluid of

3 parts 96% ethyl alcohol

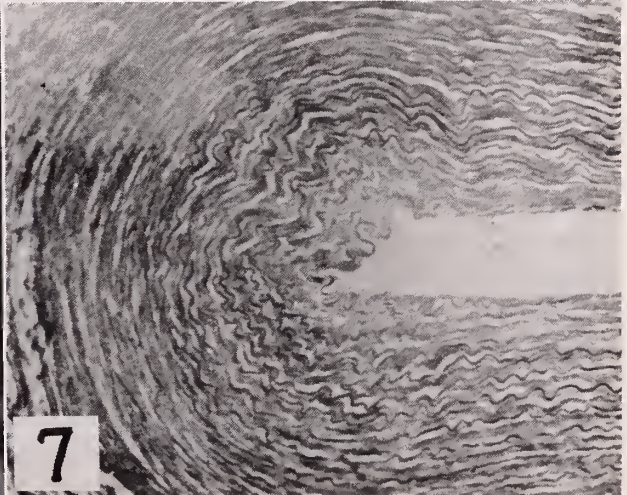
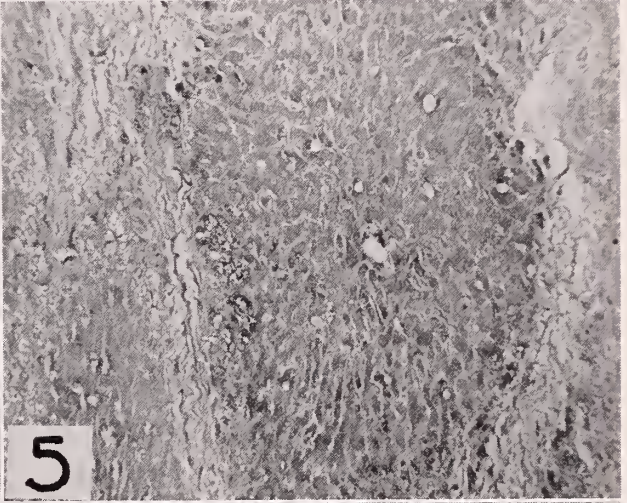
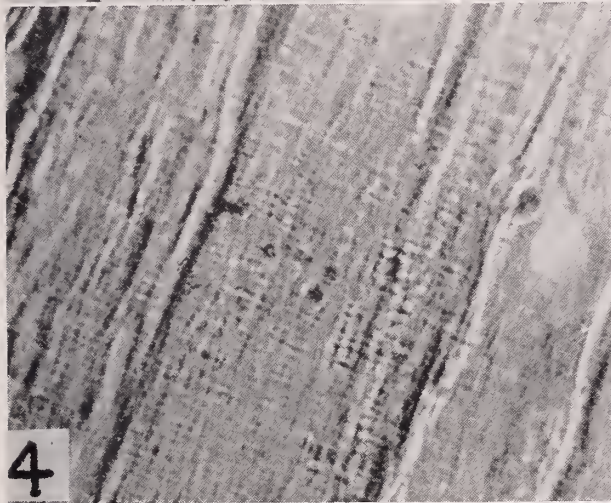
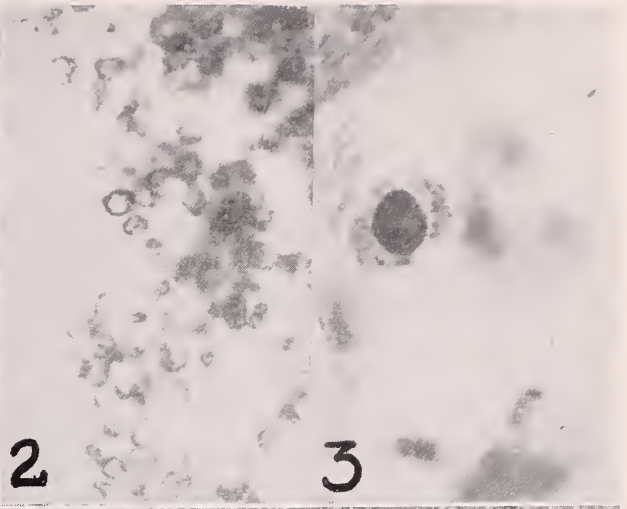
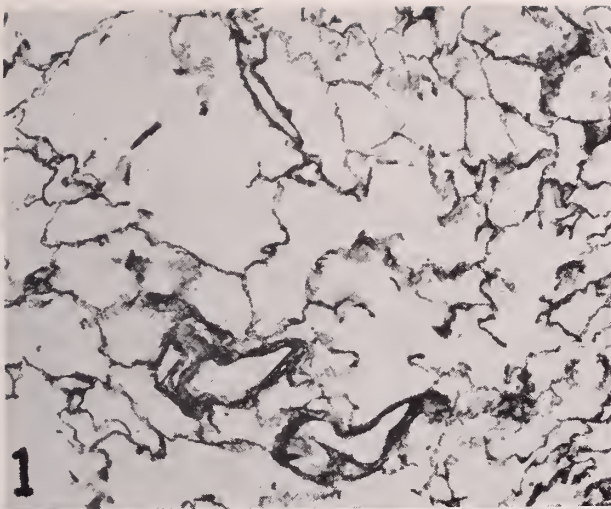
5 parts 1% Ag. formalin

2 parts 5% Ag. Na_2CO_3

Almost immediately a brown color diffuses from the material into the fluid and as it is heavy it sinks to the bottom. This is continued for several hours and maybe overnight. The tissues become transparent, soft, and almost jellylike, and are gradually dehydrated and infiltrated with paraffin. He was able to section it at 3 micra.

Many conventional staining methods have been applied—H and E, Mallory's, V. Giesons, Verhoefs, orcein, toluidine blue, phosphotungstic acid, hematoxylin, periodic acid Schiff (PAS)—with good success, and these have revealed fine detail in many tissues, such as cross striations in muscle, elastic tissue of media of large arteries, and all constituents of skin. Cartilage, both articular and trachial, was the only tissue to give a positive PAS reaction, while follicular membrane of thyroid gave the Prussian blue reaction for iron.

Williams^{10,11} reports on a mummy bundle from Lima dated at 700 A. D. and describes spinal osteo-arthritis which has been found common in mammals of the Pleistocene period, such as the cave bear, and continues today. I have examined some of the skeletons at Fort Ancient, Ohio, dating back to 1000 A. D., in which the only vertebrae



1—Lung of Egyptian mummy of 1500 B. C. showing two blood vessels and preserved alveolar architecture. Aniline blue stain, x100—after Shaw.

2—Red Blood cells of Haversian canal from bone of Viking period. Haematin stain, x1000—after Graf.

3—Bone marrow cell from Viking period. Picro fuchsin and haematin stain, x1200—after Graf.

4—Skeletal muscle from Peruvian mummy, 700

A. D., showing cross striations. x400—after Williams.

5—Liver of Egyptian mummy of 1500 B. C. showing lobule with central vein and cell columns and sinusoids. H & E, x120—after Shaw.

6—Articulating cartilage of carpal bone of Egyptian mummy. PAS stain, x400—after Sandison.

7—Carotid artery of Egyptian mummy stained with Verhoef's van Gieson fluid. x30—after Sandison.

which were unfused were the cervical and upper thoracic region.

Williams examined the black hair and scalp of the Peruvian mummies and found no indications of *pediculus humanis capitis*, which indicates their effective sanitary efforts or else that this was solely an old world affliction. The limbs and diaphragms and associated veins, arteries, and nerves were dissectable in these mummies, the cornea of the eye was preserved, but the nuclei of the cells did not stain. The skin was best preserved between the digits. Tattoo marks were visible on the body, and in basket makers, fingerprints and toe prints could be made. Adipose tissue was identifiable. Bacteria were demonstrated with methylene blue. Precipitin reactions for human serum found positive in materials obtained from Egyptian mummies were negative in Peruvian mummies.

Chemical analysis of Egyptian brain material from 4000 B. C. to recent times showed compounds of nitrogen and phosphates and cholesterol. The latter was present in all, but its quantity decreased with the age period of the mummy.

Coptic bodies from the 5th and 6th century A. D. showed the organs still in situ as the bodies were unopened and preserved merely by covering with salt. The skin was well preserved but the internal organs underwent much destruction. Crystals of fatty acids were abundant in the peritoneal cavity, particularly about the liver. The fore brain and meninges were preserved and some convolutions were recognizable. The hind brain and spinal cord were destroyed, as were the ovaries, uterus, adrenals, and lymph nodes. The lungs were shrunk but the alveolar structure was retained. Striations were preserved in cardiac muscle fibers. Columnar epithelium was retained in glands. Liver cells were distinct. In the spleen and testes only the connective tissue architecture was seen. In the kidneys the pattern of tubules and glomeruli was evident.

In conclusion let us consider the Moorleichen or Bog Bodies, which are generally be-

lieved to be those of strangled criminals. These are still occasionally exhumed from the sphagnum bogs of Europe. Some of these are believed to date back 2000 years. The acids of the swamps decalcified the bones and dissolved the sarcoplasm of the muscle, but the hair, nails, connective tissue, and cartilage is well preserved. The brain in some cases showed cholesterol. The architecture of the gall bladder, G. I. tract, and papilla of tongue was demonstrable. Very little cell structure prevailed. Collagen was well preserved but elastic tissues not. Blood cells persisted in vessels, but structures such as the axis cylinders of nerve fibers had disappeared.

Much additional material could be presented in this review of a subject somewhat peripheral to our immediate interests and still with the capacity to stimulate our thoughts. Perhaps the principle value of a study of this nature is that it acts as a gauge with which we may measure the great advance of civilization, particularly in the realm of medicine. At the same time our pride may be tempered with a feeling of inadequacy as we realize that many of our present-day ills date back through the ages and still we seek a remedy for them.

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ADRENOCORTICOIDS IN TUBERCULOSIS

Report of Three Cases

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Current issues of almost every medical journal devote a few pages to the beneficial effects of adrenocortical steroids. The development of new corticoid derivatives and their combination with other agents has widened the range of major and minor conditions in which these drugs are recommended and used. The adrenocortical steroids, like many other drugs, have undesirable actions which complicate their use. The purpose of this paper is to re-emphasize one of the complications.

In 1950 it was noted that adrenocorticotrophic hormone given to patients with pulmonary tuberculosis might produce an initial subjective improvement;¹ however, there might also be a concomitant spread or reactivation of the disease.^{2, 4} Some investigators believe that the combined use of anti-tuberculosis drugs and steroid therapy may improve the pulmonary lesions in individuals with recognized tuberculosis.⁵ However, adequately controlled studies have not been performed. The greatest hazard is to the patient with unrecognized or inactive tuberculosis who may have progression or reactivation of the disease while receiving adrenocortical steroids for an unrelated condition.^{6, 9} Three patients were seen recently at the Oklahoma University Medical Center in whom the activation of their tuberculosis was apparently related to the administration of adrenocortical steroids.

Case Reports

Case 1: A 32 year old white woman first

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entered the Oklahoma University Hospital on January 10, 1955, with the chief complaint of recurrent right lower quadrant pain during the previous two or three years associated with irregular menstrual periods. Past history was pertinent in that the patient had spent three months in a tuberculosis sanatorium in 1948. Records obtained later from the sanatorium revealed that she had been observed because of a minimal infiltration in the upper lobe of the right lung. Her diagnosis was tuberculosis of the lungs, minimal, probably active. However, she did not receive treatment. Sputum and sputum concentrates were negative for acid fast bacilli on smear and culture. X-ray films of the chest showed an infiltration on the right upper lobe. Follow-up x-ray films at the sanatorium in the latter part of 1948 showed clearing of the right apical infiltrate. A later film in August of 1949 showed no x-ray evidence of active lung disease. A chest x-ray obtained seven months prior to the present admission showed only a minimal fibrotic lesion in the right apex. Physical examination at the time of admission revealed a pelvic mass thought to be a uterine leiomyoma, and some increased skin pigmentation. On January 12, 1955, under general anesthesia, a total abdominal hysterectomy and a right partial oophorectomy were performed for leiomyomata. The day after surgery the patient developed fever and three days after the surgery she went into shock. She appeared moribund, and respirations were shallow. Acute adrenal insufficiency was suspected and she was given corticosteroids and vasopressors. She received levarterenol intravenously, 12 mg. a day for two days. Hydrocortisone was given intravenously, 100 mg. the first day and 200 mg. the second. In addition she was given oral

cortisone acetate, 50 mg. the first day, 200 mg. the second, 150 mg. the third, 50 mg. the fourth and fifth, 37.5 mg. the sixth; 25 mg. seventh through the fourteenth days; and 12.5 mg the fifteenth plus 40 units adreno-corticotopic hormone. A chest x-ray film on the day corticosteroid therapy was instituted showed an irregular area of density in the right base. Blood cultures were negative. A further progress film of the chest five days later showed an irregular area of infiltration in the left midlung field. Penicillin therapy was instituted with an improvement in the patient's condition and she was discharged on 1-30-55. However, diarrhea immediately developed and she was re-admitted to the Medical Service on 2-2-55. There was almost complete clearing of the pneumonic process except for an irregular area of infiltration in the right base with small radiolucencies suggesting cavitation. Acid fast bacilli were seen in sputum smears. She was begun on streptomycin and para-aminosalicylic acid therapy and transferred to a tuberculosis sanatorium for further therapy.

Case 2: A 34 year old white man was admitted to the Oklahoma City Veterans Administration Hospital April 8, 1956, with complaints of malaise and hemoptysis. In April 1955, while in northern California, he developed malaise, fever, and a hard shaking chill. At a county hospital in this area, he was found to have a right upper and right lower lobar pneumonia with blood cultures showing growth of pneumococci. He was in shock and appeared moribund. Penicillin was started for the pneumonia and cortisone acetate because of his shock. He received 300 mg. of cortisone acetate daily for three days, 200 mg. for the next three days, and then 100 mg. the seventh day when he was transferred to another hospital. During this hospitalization his penicillin was continued. In addition he received cortisone acetate 50 mg. for two days, 37.5 mg. for three days at which time it was discontinued and he was given 10 units of Acthar jel. He appeared to be convalescing satisfactorily although rales persisted over the right lung field posteriorly. On admission a chest x-ray film showed a rather extensive right midlung infiltrate and a small infiltration in the left lung was seen. As the pneumonia

cleared, there was slight, but definite, increase in size of the shadow in the left lung. The patient was discharged after 30 days having showed marked clinical improvement. Sputum cultures were later reported positive for acid fast bacilli and an attempt was made to locate the patient. This was not immediately successful because of his propensity for wandering about the country. From October, 1955, to April, 1956, he was anorexic, had shortness of breath on exertion, and intermittent episodes of hemoptysis. When he was finally admitted to the Oklahoma City Veterans Administration Hospital, the physical examination was normal. However, the chest x-ray showed a moderately advanced nodular infiltrate in the left midlung field. Repeated sputum smears and cultures were negative for acid fast bacilli. He was then begun on isoniazid (INH) and para-aminosalicylic acid (PAS). On this regimen there was a steady regression of the lesions in the left lung, over a period of four months and x-rays were stable for six months.

Case 3: A 59 year old white man was admitted to the Oklahoma City Veterans Administration Hospital November 7, 1956. Although extensively deformed and disabled by rheumatoid arthritis beginning in 1938, his primary complaint was increasing difficulty in starting the urinary stream during the month prior to admission. Previous arthritis treatment was of various types, extensive and ineffective, including about 50 injections of cortisone in 1950. Pain in the dorsal spine, sacrum and legs associated with a progressive kyphoscoliosis began in 1955. At the time of hospitalization, physical findings were consistent with a high spinal cord lesion. Spine x-ray films showed degeneration and wedging of several dorsal and cervical bodies and a myelogram showed a complete block at the level of the fourth thoracic vertebra. A chest x-ray film at the time of admission showed increased lung markings bilaterally, but no definite infiltrate was present. Pain in lower trunk and legs became more severe, bladder function disappeared completely and patient showed progressive loss of motor control of legs. A cervical laminectomy January 3, 1957, for spinal cord decompression disclosed that the

cord did not pulsate below the level of the fourth cervical vertebra. Apparently the damage was produced by the extensive arthritic degeneration; there was no evidence of any other process.

At the time of surgery, cortisone, 60 mg. daily, and adrenocorticotrophic hormone, 80 u. twice weekly, were begun. The cortisone was continued in decreasing dosage until January 25, 1957, with a total dosage of 1,370 mg. A total of 530 units of adrenocorticotrophic hormone was given, the dosage decreased step-wise and discontinued on February 4, 1957.

The post-operative course was stormy and febrile, complicated by a marked increase in urinary symptoms. *Aerobacter aerogenes* was recovered by urine culture. Despite many antibiotics, pyelonephritis of varying severity persisted throughout the remainder of the hospital course, and subsequent urine cultures showed growth of *Proteus rettgeri* and *Pseudomonas aeruginosa*. Fluid balance and electrolyte disturbances offered additional post-operative complications. On February 4, 1957, a chest x-ray film showed a pneumonic process in the right lower lung field, but blood and sputum cultures at this time were sterile. Temperature became normal on February 11, 1957, and with the appearance of plaques of *Candida albicans* on the oral mucosa, all other antibiotics were discontinued and nystatin was given for 14 days, with apparent improvement. The possibility of pulmonary candidiasis could not be proved. The right lower lung field infiltration disappeared, and on April 9, 1957, a chest x-ray film showed a small nodular infiltrate in the right upper lung field. Serial chest x-ray films showed progressive enlargement of this lesion. Many cultures of gastric washings and sputum failed to yield growth of tubercle bacilli, except for two positive cultures obtained May 13 and 16, 1957. Isoniazid, 300 mg. daily, was begun on July 10, 1957. No other positive cultures were obtained.

The persistent pyelonephritis of varying severity continued to be the most serious problem, and resisted all treatment, probably because of the cord bladder. The hos-

pital course was progressively downhill with recurrent electrolyte imbalance, low-grade anemia, pyuria, proteinuria, and persistent high fever. The patient died on August 10, 1957.

An autopsy revealed bilateral chronic pyelonephritis. There was no evidence of renal tuberculosis. The lesion in the right upper lung measured 3.0 x 3.5 cm. and had the gross appearance of a healing granuloma. The microscopic appearance was that of a tuberculous focus with only slight development of fibrous tissue. No cultures of the lesion were made. There was no evidence of tuberculosis elsewhere in the body.

Discussion

These first two cases represented acute situations in which adrenocorticoids were used. In the first patient, the acute adrenal insufficiency responded to steroid therapy; however, there was rapid reactivation of the patient's pulmonary tuberculosis with cavitation. The second patient had tuberculosis in an almost sub-clinical state, when his pneumonia developed, which increased during the time the pneumonia was clearing and he received cortisone acetate. Cortisone was given to the third patient to prevent progression of his arthritis. Since the arthritis was quiescent it is very doubtful that steroid therapy was indicated. In none of these cases can it be proved that the steroid therapy was fully or partially responsible for the reactivation of tuberculosis. However, since considerable stress in the form of surgery and other intercurrent illness usually does not result in flare-ups of tuberculosis, the inference is strong that the cortical steroids played a part in the unfavorable course.

Patients with Addison's disease and active pulmonary tuberculosis can be treated with cortisone or similar substances if anti-tuberculosis therapy is given concurrently.¹⁰ In such situations, the physiologic replacement doses given are much less than the larger, non-physiologic doses given for other conditions. Some workers believe that the spread of pulmonary tuberculosis will not occur on this dosage of cortisone ace-

tate.¹⁰ The part adrenocortical steroids should play in the treatment of tuberculosis is not fully known, and many of the reports concerning their use have been conflicting. In one series reporting the use of cortisone or corticotropin in patients with visible laryngeal lesions, there was improvement in the gross appearance of the lesions.¹⁰ A second group showed no gross change.¹² Biopsies of the laryngeal lesions in the second group actually showed progressive histological changes and increased numbers of tubercle bacilli.

The Laboratory Sub-committee of the Committee of Medical Research of the American Trudeau Society in 1952, prepared a statement about the effects of cortisone or corticotropin on experimental tuberculosis infections in animals.¹³ After reviewing approximately 39 experimental studies, it was concluded that in certain animals these agents could convert a chronic tuberculous infection into an acute condition, and their withdrawal could be followed by sudden flare-up of the disease. However, the animal species, conditions of the experiment, and many other factors influence the results. In the same year, the American Trudeau Society Committee on Therapy¹² analyzed 81 known tuberculosis cases treated with cortisone or corticotropin. The following conclusions were reached: (a) The hormone does not always cause an exacerbation of the disease, but it may; (b) There is decreased localization and increased spread of the disease with their use; (c) The development of excavation after hormone therapy is fairly common, and exacerbation of old, apparently inactive lesions may occur. This committee recommended that all patients should be carefully evaluated for tuberculosis activity before starting steroids and there should be liberal use of serial x-ray films and sputum cultures during and after treatment with adrenocorticosteroids.

Summary and Conclusion

Three cases in which the administration

of adrenocortical steroids were probably instrumental in the activation of pulmonary tuberculosis are presented. The importance of careful evaluation of patients with known prior tuberculosis infection before starting steroids is emphasized. All patients treated with adrenocorticosteroids should have pre-treatment and follow-up x-ray films and sputum examinations if conditions warrant. Careful evaluation of the patient's need for the adrenocortical steroids should be made before they are given.

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The Nerve Impulse at the Myoneural Junction

and Factors Affecting Transmission

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Exploration of the basic physiologic mechanisms of nerve-muscle conduction has increased tremendously in recent years and subsequently has led to great advances in the explanation of many clinical signs and syndromes, such as myasthenia gravis, which are due to malfunction at the myoneural junction. These findings have been in agreement with the now almost totally accepted basic theory of myoneural transmission, a brief summary of which will be presented followed by many of the more important factors influencing conduction.

In the resting state of the non-myelinated nerve terminals, acetylcholine (ACh) is present at the neuromuscular junction in a protein-bound form.⁶ Also concentrated at the junction are quantities of acetylcholine esterase or specific choline esterase, which is the predominant form found in this region.^{3, 21} This type has been demonstrated to be distinctly different in many ways from non-specific choline esterase.^{3, 34} There is a high affinity to ACh and a high turnover rate, no other ester being hydrolyzed at a greater rate. It splits propionylcholine at the same or at a lower rate, and butyrylcholine and non-choline esters at a low rate or not at all. In contrast, non-specific esterases have a relatively low affinity for choline esters when compared to acetylcholine esterase. They are not inhibited by high concentrations of ACh and display an increasing hydrolysis rate with increasing length of the acyl chain from acetyl to n-butyryl.

Stimulation of the motor nerve causes a cleavage of the ACh from the bound state to a free state in the amount of 10^{-10} μgm

per nerve terminal or end-plate per impulse.¹ After a brief latent period, which was determined by Eccles *et al.* to be at least 0.6 microsec. in the cat soleus muscle,¹⁵ the free ACh combines with the protein receptor on the outside surface membrane of the muscle fiber motor end-plate,^{9, 29} the end-plate region being much more sensitive to ACh than adjacent areas.

The ACh-receptor complex thus derived implies, according to Nachmansohn,^{2, 29} a change in the molecular configuration of the receptor protein which would cause some degree of depolarization of the end-plate surface membrane due to the resultant ionic flow. This change in configuration is explained by assuming that the protein molecule would have to surround the ACh molecule to be in contact with all the methyl radicals of the tetrahedral shaped quaternary group of ACh.

When the depolarization of the end-plate area reaches one half to one third of the normal end-plate potential, the impulse is propagated.^{13, 15, 22} Brown found that the amount of injected ACh necessary to produce a contraction or tension equal to the twitch was approximately 2.0 μgm .⁶

Since the ACh-receptor complex is in dynamic equilibrium with the free ester and protein, hydrolysis of the free ester by ACh-esterase to choline and acetate results in a shift of equilibrium toward the recovery of the free protein receptor and subsequent return to the resting state. Phosphate esters such as tetraalkylpyrophosphate, dialkyl-p-nitrophenyl phosphate, and dialkyl fluorophosphate have been found to be very strong irreversible inhibitors of ACh-esterase. These compounds form phosphoryl enzyme complexes rather than the acetyl enzyme. Acetyl enzymes react with water in a few

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microseconds to liberate acetate, whereas the phosphoryl enzyme requires days to react. An extremely active compound, 2-pyridine aldoxime methiodide, has been found to reactivate the inhibited enzyme formed by the two inhibitors, tetraethylpyrophosphate (TEPP) and diisopropyl fluorophosphate (DFP) at near enzyme speeds.²⁷

The acetate portion of the hydrolysis combines with the sulfhydryl group of Coenzyme A, a coenzyme isolated by Nachmansohn and Machado,³⁰ in the presence of adenosinetriphosphate (ATP) to form an acetyl-Coenzyme A complex.^{26, 27, 30, 31} The complex is then split through the influence of another enzyme, choline acetylase, and the acetyl group transferred to the other ACh hydrolytic product, choline, to regenerate the protein-bound form of ACh.

The process of ACh formation has been found to be aided by the presence of fluoride. In contrast, copper, iodoacetic acid and iodine have a strong inhibitory effect.³⁰ Almost anything diminishing the respiratory mechanisms of the neuron, such as narcotics, may decrease the rate of ACh synthesis. Any damage that is brought about in the nerve cell also seems to affect the synthesis of ACh presumably because it interferes with the synthesis of ATP and other factors involved in ACh formation. The lecithinases inhibit the synthesis of ACh probably by breaking down nerve cell mitochondria which are necessary for production of the ATP required for the synthesis.

One of the most investigated inhibitors of neuromuscular transmission is curare. Bovet and Bovet-Nitti recognized that curare resembled two linked molecules of ACh and postulated that curare and closely related compounds blocked neuromuscular transmission by competing with ACh for the receptor protein.^{1, 3} One of the related compounds, stilbamidine, a diguanidino derivative, shows similar effects.¹ Kuffler demonstrated that curare and like substances decreased the sensitivity of the end-plate to ACh by as much as one hundred times.²³ Progressive curare block results in a progressive decline in the rate of rise of the total height of the end-plate potential (epp) but with no appreciable effect on its latent

period, in a progressive delay in the latent period of the depolarization spike but no change in its height, and finally in a complete block with total disappearance of the spike.²² Depolarization does not occur due to the effects of the block, but can readily occur on direct electrical stimulation of the muscle, denoting that the electrical excitability of the muscle is not affected by curare.^{1, 25} Therefore, any agent is considered to be curare-like if it blocks neuro-muscular transmission without modifying conduction in the nerve or affecting twitch tension in the muscle in response to direct stimulation.¹⁸

Decamethonium or C 10 is the most active of the polymethylene, bistrimethylammonium iodides causing neuromuscular block in the cat.³² C 10, like most other quaternary compounds, does not significantly affect ACh-esterase activity but instead, blocks the spike by combining with the receptor proteins and causing depolarization. However, unlike ACh, C 10 is not hydrolyzed at all by ACh-esterase, so that repolarization does not occur. Although d-tubocurare is also a quaternary compound and blocks neuromuscular transmission, the block is curare-like in that there is competition with ACh for the receptor proteins of the junction and depolarization does not result. Jenden found that the action of C 10 on isolated guinea pig diaphragm resulted in two phases of neuromuscular block, the first phase resembling the depolarizing block observed *in vivo* and the second phase resembling the block produced by d-tubocurare.¹⁹ The block by C 10 may arise at a different part of the neuromuscular synapse from that caused by d-tubocurare.³² C 10 has also been found to resist the anticholinesterases and relieve curare block. Though it is not antagonized by anticholinesterases, pentane and hexane homologues of C 10 cause a decreased action due to competitive inhibition. Previous administration of d-tubocurare also has an inhibitory effect on the action of C 10. The following chart by Paton and Zaimis,³² summarizes some of the differences between C 10 and d-tubocurarine chloride.

The anti-cholinesterase activity of prostigmine, Nu-1197, Nu-1250, and Nu-1317 which are all prostigmine analogs or quaternary

	C 10	d-tubocurarine Cl
Character of muscle response to tetanic stimulation during block	well-sustained contraction	poorly-sustained contraction
Effect of tetanus on block	none	decurarization
Effect of antiesterases on block	no antagonism	decurarization
Effect on striated muscle	contraction of frog rectus muscle potentiates ACh	no contraction of frog rectus M. Antagonizes ACh
Effect of d-tubocurarine administered previously	antagonized	potentiated (also by C 10 previously)

ammonium compounds; eserine and Nu-2126, which are tertiary amines; and diisopropyl-fluorophosphate (DFP) was found by Eccles and McFarlane to be similar in their actions but varying in their activity, prostigmine being the most effective and DFP usually the least.¹⁴ These compounds depress the enzyme activity to a low level, which subsequently leads to a block of the action potential.^{2, 16}

The compounds carbamyl choline and procaine are quaternary compounds and exhibit inhibition at the neuromuscular junction. However, they differ in that carbamyl choline simultaneously blocks and depolarizes while procaine inhibits without depolarizing.² The depolarization by carbamylcholine is antagonized by procaine, eserine, d-tubocurarine and tertiary prostigmine analogues.

Local application of potassium chloride to the end-plate region results in a rapid tetanus-like contraction even after the end-plate is refractory to the nerve impulse and to ACh. Only when the end-plate does not react to direct electrical stimulation is it insensitive to KCl.⁸ However, potassium is not restricted in its effects only to the end-plate region to prevent the depolarization and consequent excitation by potassium.¹

On initial application of ACh to the end-plate region, the muscle fibers undergo a short, rapid, tetanus-like contraction but are insensitive to further applications and to stimulation of the nerve.⁸ Impulses can be initiated at any region on the muscle fiber, provided strong concentrations are applied to the end-plate-free parts of the fibers.²⁵

Magnesium blocks transmission similarly to curare but differs from curare in not only blocking ACh but also the effects of potassium.¹ Calcium also has a significant effect on the end-plate region, which has been shown by Kuffler,²¹ using frog sartorius M., to be an increased excitability when the calcium ion concentration is reduced to one-third to one-fifth normal.

In denervated muscle, response to the various chemicals is altered. Both electrical activity and contraction of denervated dog gastrocnemius is provoked by d-tubocurarine which is opposite to its previous effect.²⁸ After injection of d-tubocurarine, the muscle becomes less or completely unresponsive to previously effective concentrations of ACh. In large concentrations, prolonged muscle contractions are produced. During these contractions the electrical fibrillation of denervation is greatly diminished and sometimes completely suppressed.²⁸

In rat muscle having been denervated from five to twenty-two days, tension developed in response to direct stimulation is not affected by d-tubocurarine but C 10 causes weakness of response.¹⁸ This action is suggested by Zaimis to be due to a blocking of the propagated action potential in the area around the end-plate, a region depolarized by C 10.³⁸

When the nerve innervating a muscle degenerates, the muscle undergoes disuse atrophy and after about four days the nerve becomes inexcitable; a greater sensitivity to ACh and nicotine develops during the subsequent two weeks until the muscle finally becomes 1,000 to 100,000 times as sensitive.

This sensitivity causes an initial contraction to be followed by a prolonged contraction during which no muscle impulses can be elicited. Normally the region of the motor nerve end-plate is at least ten times more sensitive than other regions but after denervation, although the relationship is still present, the sensitivity of all parts is greatly increased.^{7, 12, 23}

The fine fibrillating movements of denervated muscle are due to contractions induced by impulses spontaneously arising in a single muscle fiber at the rate of about ten contractions per second in cat muscle. The focus is often distant to the end-plate region and is not affected by curare and only slightly increased by eserine.¹²

Fatigue of the neuromuscular junction is due to decreasing amounts of ACh liberated by the motor nerve endings until sub-threshold levels are reached. The progressive decline is accountable by the fact that the response is due to the sum of the contractions of the individual fibers and if the amounts liberated fall below the threshold of an increasing number of junctions, the contractions of the muscle as a whole will gradually become smaller.³³

In the preceding paragraphs some of the various and more important means of nerve inhibition at the myo-neural junction have been presented. Examples have been given which illustrate inhibition of the ACh synthesis mechanism, inhibition of the ACh hydrolysis mechanism involving ACh esterase, and inhibition of the receptor mechanism at the motor end-plate region. In addition, the general effects of denervation and cause of fatigue have been noted. Although a more complete list of factors associated with inhibition could be enumerated, the more important examples presented should provide an insight into the theory of nerve impulse propagation at the myo-neural junction and the factors affecting transmission.

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ABSTRACTS

Formation of Scopoletin From Esculin and Esculetin in the Rat

CHAO-HWA YANG,* H. D. BRAYMER,* P. L. PETRAKIS,** M. R. SHETLAR,*** and S. H. WENDER.****

Arch. Biochemistry and Biophysics 75: 583, June, 1958

Following the feeding of esculetin (6,7-dihydroxycoumarin) and esculin (esculetin-6-glucoside) to rats, scopoletin (6 methoxy-7 hydroxycoumarin) and 6-hydroxy-7 methoxycoumarin were found in the urine. When esculin was fed, both esculin and esculetin were identified in the urine; unchanged esculetin was found in the urine after feeding this compound. Paper chromatography indicated the presence of at least four other compounds as yet unidentified.

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**Research Assistant, Department of Biochemistry, University of Oklahoma School of Medicine.

***Associate Professor of Biochemistry, University of Oklahoma School of Medicine.

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Serum Protein and Glycoprotein Alterations in Swine With Experimental Arthritis

M. R. SHETLAR,* CLARA L. SHETLAR,* R. W. PAYNE,** GEORGE M. NEHER,*** and CHARLES B. SWENSEN.***

Proc. Soc. Exper. Biol. & Med. 98: 254, June, 1958

A serial study was made of protein and glycoprotein changes of swine during arthritis which follows recovery from *Erysipelothrix* infections. As in sera from humans with rheumatoid arthritis, elevated serum glycoprotein, seromucoid and serum globulins and lowered serum albumin concentrations were noted in swine sera during active phases of the disease. No serum I-globulin was identified in swine sera. During remissions of experimental arthritis, serum glycoprotein levels decreased and the serum albumin increased. Cortisone treatment of animals with active arthritis produced clinical improvement accompanied by striking increases of albumin protein with decreases of seromucoid, serum V-globulin protein and V-globulin bound hexose concentrations.

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***Department of Veterinary Science, Purdue University.

Diagnosis of Cerebral Schistosomiasis

JAMES F. HAMMARSTEN*

A.M.A. Arch. Neurol. & Psychiat. 79: 132-135 (Feb.) 1958

Cerebral schistosomiasis may produce a variety of neurological symptoms, such as headache, language dysfunction, paralysis, and Jacksonian or grand mal seizures. Therefore, a patient presenting such symptoms, who has resided in an endemic area even years before, should be studied for possible cerebral schistosomiasis. The search for ova in the feces is a difficult and time-consuming procedure. This report demonstrates the efficiency of biopsy of a rectal specimen in the diagnosis of schistosomiasis. The 12 patients on whom this report is based were hospitalized at two Veterans Administration hospitals. All had schistosomiasis japonica, and all had been in the Philippine Islands. From three to 10 years had elapsed between the time of exposure and the diagnosis. Only two patients had a definite history of acute schistosomiasis while in the endemic area. Four of the 12 patients had seizures, two had focal seizures alone, one had generalized grand mal and focal seizures, and one had psychomotor attacks. In three the diagnosis was first established by a craniotomy. A positive Wasserman reaction in the spinal fluid with a negative Wasserman reaction in the blood was present in two patients. Whereas eosinophilia was present in most of the 12 patients, hepatomegaly, splenomegaly and abnormal results of liver function tests were observed in only a few of them. In this connection the author points out that, whereas hepatic and splenic damages are frequent in long-term residents of endemic areas, this is not the case in short-term residents. Stool examinations were positive in only two of the 12 patients, despite numerous studies. In contrast, the biopsy of a rectal specimen was positive in all but one patient.

*Chief, Medical Service, VA Hospital, and Associate Professor, Department of Medicine, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

Parietal Pleura Needle Biopsy

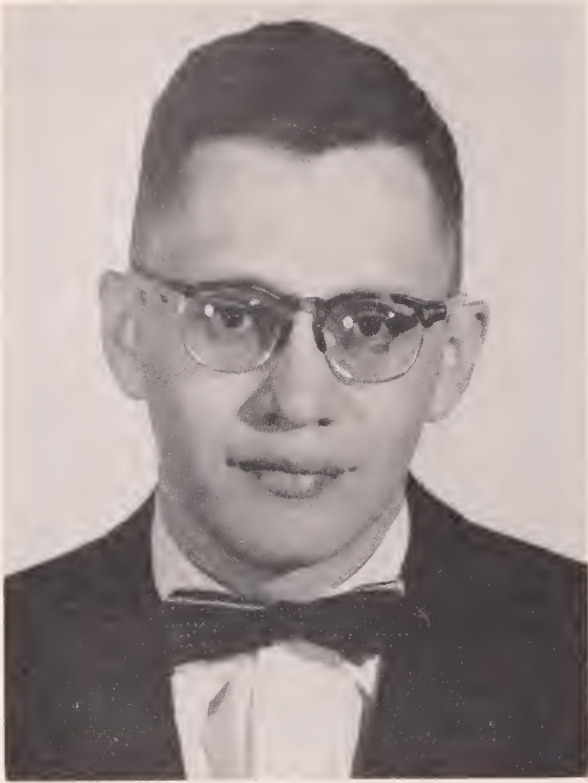
JACK D. WELSH, M.D.*

Arch. Int. Med., 101: 718, April 1958

Needle biopsy of the parietal pleura using a Vim-Silverman needle was performed in 17 patients who had pleural effusions or pulmonary lesions with a high suspicion of neoplasm or tuberculosis. There were 10 specimens which yielded a diagnosis of neoplasm, 2 chronic pleuritis, and 5 were inadequate for examination. The method is considered useful and safe, particularly in patients with pleural effusions. A negative specimen does not rule out tuberculosis or neoplasm. For a description of the technic, the original article should be consulted.

*Resident, Department of Medicine, University of Oklahoma and VA Hospitals.

FACULTY NEWS



ALFONSO PAREDES, M.D.

Alfonso Paredes, M.D., has been appointed Research Associate in Psychiatry, Neurology and Behavioral Sciences. Doctor Paredes received his M.D. degree in 1951 from the University of Mexico. His training in Psychiatry included study at Herrick Memorial Hospital, Berkeley, California, the University of Kansas Medical Center, University of Maryland and the University of Oklahoma Medical Center.

Present research interests lie in the fields of Psychopharmacology, Psychoendocrinology, and Psychopathology of the "brain-damage" patient.

George Rainey Williams, Jr., M.D., has been appointed Assistant Professor of Surgery. He received his M.D. at Northwestern University School of Medicine in 1951 and served his internship at Johns Hopkins Hospital. During his residency in Surgery at Johns Hopkins, he was awarded a William Stewart Halsted Fellowship. Prior to appointment at the University of Oklahoma Medical Center, Doctor Williams held the position of Instructor in Surgery at Johns Hopkins.

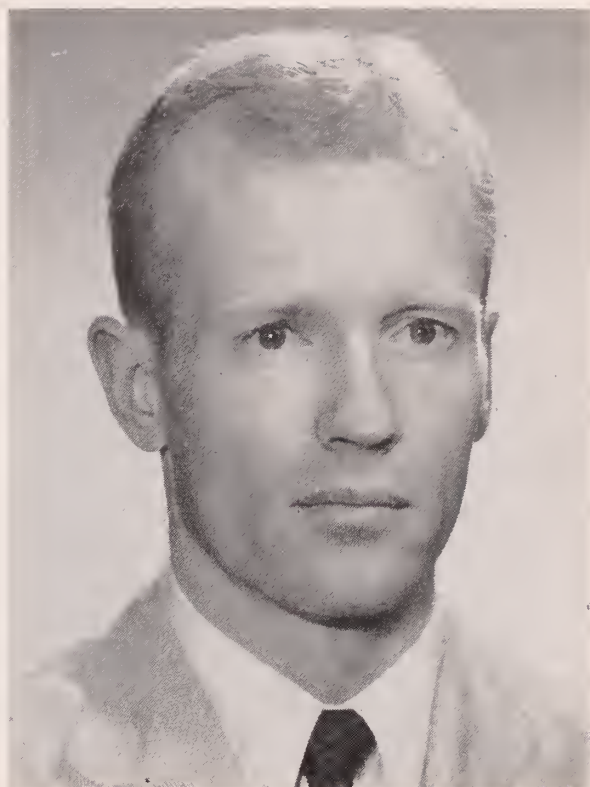
Present research activities are in the field of Cardiovascular surgery.



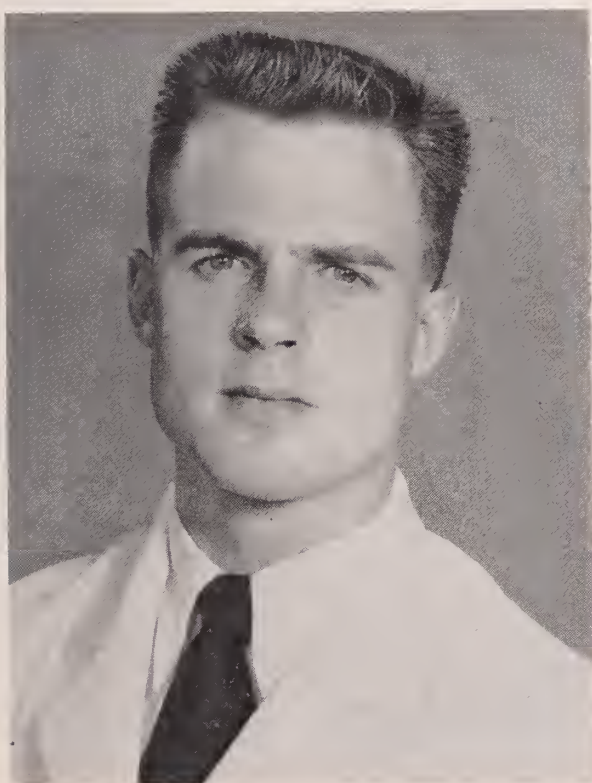
GEORGE RAINEY WILLIAMS, Jr., M.D.

DeWitt T. Hunter, Jr., M.D., is Associate Professor of Pathology and Director of Clinical Pathology Laboratories at University Hospitals. He graduated from the University of Maryland School of Medicine, Baltimore, in 1952. He was Assistant Resident in Pathology at Johns Hopkins Hospital and further postgraduate training followed at the University of Pennsylvania. At the time of his appointment to the faculty of the Medical Center, Doctor Hunter was associate pathologist at Baylor Hospital in Houston.

Research interests include "in vitro" kidney perfusion studies, cholesterol metabolism and anatomical studies of the prostate gland.



DeWITT T. HUNTER, Jr., M.D.



GLEN G. CAYLER, M.D.

Glen G. Cayler, M.D., has been appointed Assistant Professor of Pediatrics at the School of Medicine. Doctor Cayler received his M.D. degree from the University of California in 1950. Prior to coming to Oklahoma, Doctor Cayler completed a fellowship in pediatric cardiology at Children's Hospital in Boston, Massachusetts. Doctor Cayler is primarily interested in pediatric cardiology.

PRESIDENT'S LETTER



In the year 1880 life expectancy in the United States was 42½ years; in less than eighty years it has risen to 69½ years. Today, of the 180,000,000 people in this country, almost 15,000,000 are over the age of sixty-five, and it is estimated that by 1975 their number will increase to 20,000,000 or more than 10 per cent of the entire population.

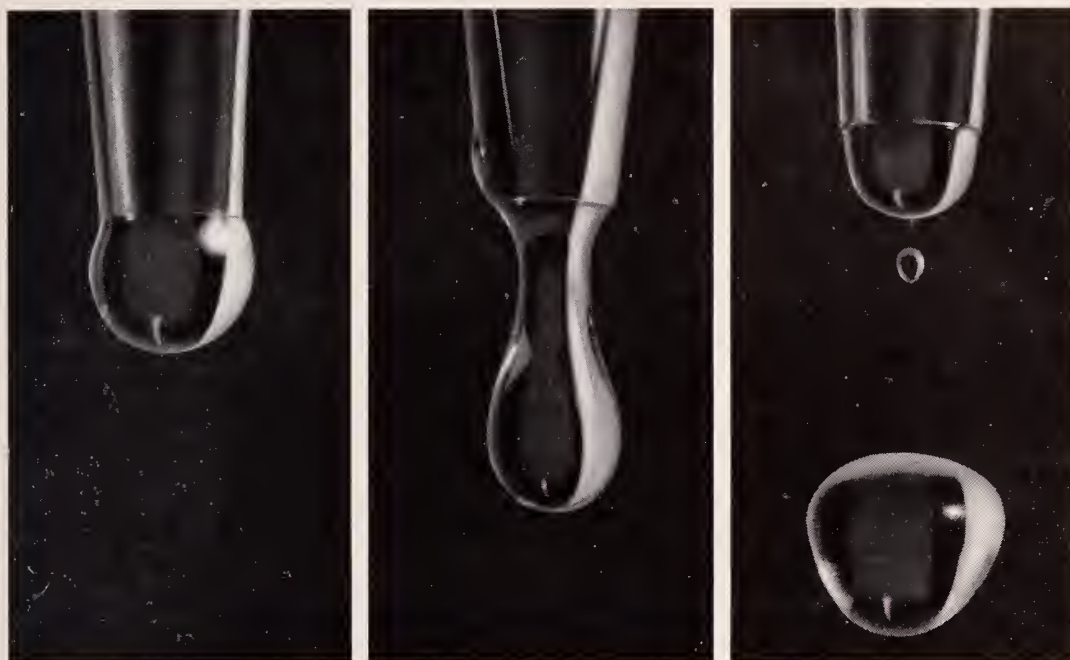
There is little wonder then that the care and welfare of the aged has become one of the major problems facing the American people, particularly the medical profession, since forty percent of all the long-term disabilities are in this group of people who are over the age of sixty-five.

If we are to make a sound approach to this complex problem, we must first understand at least some of the problems of our aged citizens. Mandatory retirement by most industries has produced a very definite psychological imprint on the minds of many of these people who have reached the age of sixty-five. To them they no longer feel that they are productive members of society, but are being turned out to proverbial pasture and left to content themselves with the less important things of life.

Economically, it has been almost impossible under our present tax structure and high cost of living for these people to acquire enough reserve to provide much more than the necessities of life, let alone money enough to meet the costs of long term disability or rehabilitation. It isn't right for them to suffer or die when medical help is available. By some means, financial assistance must be provided, and it is becoming more difficult and in some cases impossible for the families to meet these needs, and by the same token, hospitals, doctors and druggists can no longer absorb this financial burden even though all should help. It then becomes the responsibility of society to bridge the gap, but it is equally as important to preserve the independence and dignity of the individual. How best to attain this goal is still a problem unsolved. I am confident, however, that the medical profession will meet the challenge with unselfish sincerity, dignity and wisdom, and should assume leadership.

A handwritten signature in dark ink, reading "E. C. Mohler, M.D.", with a stylized flourish at the end.

E. C. MOHLER, M.D.
President



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- Zanchol produces a deep, brilliant green bile, regardless of its original color, suggesting improved hepatic function.

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Administration: One tablet three or four times a day. Zanchol is supplied in tablets of 250 mg. each. G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

Medical News

Speakers Listed

For

Oklahoma Colloquy

Latest findings of investigators in the field of arthritis and related disorders will be reported at the Second Oklahoma Colloquy on Advances in Medicine November 12-15 at the University of Oklahoma School of Medicine.

The list of guest speakers includes such nationally prominent names as Alexander B. Gutman, M.D., Director of Medical Service and of Medical Research at the Mount Sinai Hospital, New York City; John H. Talbott, M.D., head of the Department of Medicine, University of Buffalo School of Medicine, Buffalo, New York; and C. H. Slocumb, M.D., consultant in medicine at the Mayo Clinic's Department of Rheumatic Diseases, Rochester, Minnesota.

Doctor Gutman will speak November 12 on Recent Advances in Purine Metabolism in Relation to Gout and The Concept of Secondary Gout.

His primary interest is the biochemical and metabolic aspects of disease. Doctor Gutman is founder and editor-in-chief of the *American Journal of Medicine* and associate editor of Cecil & Loeb's Textbook of Medicine.

He received his Ph.D. from Cornell University in 1926 and his M.D. from the University of Vienna, Austria, in 1928.

Doctor Talbott, a graduate of Harvard Medical School, has been Professor of Medicine at Buffalo since 1946. He is editor-in-chief of *Medicine* and *Archives of Inter-american Rheumatology*.

He has been a member of a number of expeditions concerned with the effects of high altitude and high temperatures and, in 1951,



Therapeutic Aspects of Gout and Selected Aspects of Connective Tissue Disease will be discussed by John H. Talbott, M.D., University of Buffalo School of Medicine, at the Second Oklahoma Colloquy on Advances in Medicine.

was director of the U.S. Army Frostbite Commission to Korea.

Doctor Talbott also will address opening sessions of the conference, speaking on Therapeutic Aspects of Gout and Selected Aspects of Connective Tissue Disease.

Doctor Slocumb will present two papers at the November 14 meeting. They deal with treatment of rheumatoid arthritis and the undesirable reactions observed in the hypercortisone state.

He is past-president of the American Rheumatism Association and a member of the editorial board of its journal, *Arthritis and Rheumatism*. The University of Minnesota Graduate School professor also is on the Medical and Scientific committee of the Arthritis and Rheumatism Foundation.

Doctor Slocumb received his M.D. and M.S.



C. H. Slocumb, M.D., consultant in Medicine for the Department of Rheumatic Diseases, Mayo Clinic, is one of 11 guest speakers who will appear at the Second Oklahoma Colloquy on Advances in Medicine.

from the University of Minnesota Medical School.

Conference sessions November 12-14 will be held in the Medical School auditorium. The final meeting Saturday, November 15, will be a breakfast roundup in Faculty House.

Some 450 persons attended the first Oklahoma Colloquy last year. The second conference, developed by the School of Medicine's Department of Medicine and Division of Postgraduate Education, is sponsored by the Oklahoma Chapter, Arthritis and Rheumatism Foundation and Geigy Pharmaceuticals, Wyeth Laboratories, The Upjohn Company, Pfizer Laboratories, and Schering Corporation.

Invitations have gone to rheumatologists over the nation. Papers to be given by the other eight guest lecturers deal with many aspects of rheumatic fever, rheumatoid disease, lupus erythematosus and other disorders.

The speakers include Morris Ziff, M.D., professor of Internal Medicine, University of

Texas, Southwestern Medical School, Dallas; Robert W. Quinn, M.D., head of the Department of Preventive Medicine and Public Health, Vanderbilt University, Nashville, Tenn.; Richard H. Follis, Jr., M.D., chief of the Nutrition and Metabolism section, Armed Forces Institute of Pathology, Washington, D.C.

Ralph Heimer, Ph.D., researcher in rheumatic diseases on the staff of The Hospital for Special Surgery, New York City; Alfred Jay Bollet, M.D., a Markle Scholar and assistant professor of medicine at Wayne State University College of Medicine, Detroit, Mich.; Thomas McP. Brown, M.D., Eugene Meyer, M.D., Professor of Medicine and Chief of Medicine, George Washington University School of Medicine and Hospital, Washington, D.C.

Robert A. Good, M.D., American Legion Memorial Heart Research Professor of Pediatrics, University of Minnesota, Minneapolis; and Vincent C. Kelley, M.D., Ph.D., professor of Pediatrics, University of Washington School of Medicine, Seattle.



Robert W. Quinn, M.D., professor and head of the Department of Preventive Medicine and Public Health at Vanderbilt University, Nashville, Tenn., will present papers at the Oklahoma Colloquy November 12-15 at the University of Oklahoma Medical Center.

International Medical Assembly To Meet in Cleveland

Plans have been completed for the 43rd Annual Scientific Assembly of the Interstate Postgraduate Medical Association to be held in Cleveland, Ohio, November 10-13. Day sessions will be held in the Cleveland Auditorium with the evening sessions convening in the Statler-Hilton Hotel.

The list of guest speakers includes many nationally prominent names. Lecturers for the Monday session which will open at 8:30 a.m. will be: Allan C. Barnes, M.D., Cleveland; Donald W. Mulder, M.D., Rochester, Minnesota; Henry L. Bockus, M.D., Philadelphia; Ormand C. Julian, M.D., Chicago; Arthur C. Kerkhof, M.D., Minneapolis; John A. Gius, M.D., Iowa City, Iowa; William C. Keettel, M.D., Iowa City, Iowa; George Crile, Jr., M.D., Cleveland; Jay Jacoby, M.D., Columbus, Ohio; Willis J. Potts, M.D., Chicago; Jerome W. Conn, M.D., Ann Arbor; Col. John P. Stapp, Dayton, Ohio; and Col. H. H. Ziperman, Ft. Sam Houston.

Participating in the program on Tuesday will be: Louis A. Brunsting, M.D., Rochester, Minnesota; Robert M. Zollinger, M.D., Columbus, Ohio; Edwin H. Ellison, M.D., Milwaukee, Wisconsin; Dan W. Elliott, M.D., Columbus, Ohio; Stanley O. Hoerr, M.D., Cleveland; William D. Holden, M.D., Cleveland; Carroll B. Larson, M.D., Iowa City, Iowa; Charles W. Mayo, M.D., Rochester, Minnesota; William B. Castle, M.D., Boston; Roy G. Holly, M.D., Omaha, Nebraska; William A. Altemeier, M.D., Cincinnati; Richard W. Vilter, M.D., Cincinnati; Richard Patton, M.D., Columbus; Leonard Lovshin, M.D., Cleveland; Waltman Walters, M.D., Rochester, Minnesota; George A. Hallenbeck, M.D., Rochester, Minnesota; and C. Naunton Morgan, F.R.C.S., London, England, who will present the Sullivan Memorial Lecture.

On Wednesday, the ten physicians who will lecture are: Tom D. Spies, M.D., Birmingham; Oliver S. Moore, M.D., New York; John T. Ferguson, M.D., Traverse City, Michigan; Robert W. Wilkins, M.D., Boston; Charles H. Herndon, M.D., Cleveland; Hans Selye, M.D., Montreal, Canada; E. Harry Botterell, M.D., Toronto, Canada; Samuel F. Marshall, M.D., Boston; John G. Young, M.D., Dallas; and Richard Magraw, M.D., Minneapolis.

Nine lecturers who will participate in the Thursday session are: Adolph L. Sahs, M.D., Iowa City, Iowa; John M. Sheldon, M.D., Ann Arbor; Fred H. Allen, Jr., M.D., Boston; Frank W. Newell, M.D., Chicago; Harry Beckman, M.D., Milwaukee, Wisconsin; John H. Laragh, M.D., New York; Harriett P. Dustan, M.D., Cleveland; Erwin Neter, M.D., Buffalo, New York; and Robert F. Schilling, M.D., Madison Wisconsin.

In addition to the lectures, scientific exhibits, teaching demonstrations and medical teaching films will be observed. The program has been approved by the A.A.G.P. providing hour for hour credit in Category 11.

Social activities for the four-day assembly include music and dancing in the ballroom of the Statler-Hilton on Tuesday night. Wednesday night, the annual dinner will honor Charles F. Kettering, noted inventor and scientist. Mr. Kettering will also be the guest speaker and his topic will be "An Inventor Looks at Science and Medicine". Special entertainment for the ladies will include a tea, luncheon, style show and theatre party.

Registration fee for the Assembly will be \$10.00 for all physicians except those in the Armed Forces, interning and serving residencies, who will be charged \$2.00. Further information and a complete program may be obtained by writing to Erwin R. Schmidt, M.D., Secretary, Interstate Postgraduate Medical Association of North America, Box 1109, Madison 1, Wisconsin.

Registry of Doctors' Nurses Forced to Terminate Activities

The office of O.S.M.A. has been informed by W. Harold Parham, Associate Managing Director of the Florida Medical Association, of a ruling made by the Attorney General of the State of Florida concerning the reputation of the American Registry of Doctors' Nurses, Marianna, Florida, which has circulated promotional material throughout the United States.

The Attorney General, State of Florida, ruled on April 8 that this organization was in violation of the Nursing Practice Act of Florida. The Florida State Board of Nursing later announced that the Registry had temporarily suspended its program in the State of Florida.

Three Bahamas Conferences Listed

Three Bahamas Conferences have been scheduled for this coming winter which will give participants an opportunity to vacation, as well as attend the scheduled meetings. The first of the meetings will be the Sixth Bahamas Medical Conference which will meet from November 28 to December 18. Twenty-eight speakers from different sections of the United States will participate in this conference. Beginning December 29, the First Bahamas Surgical Conference will begin and continue through January 17. Ending the three conferences will be the Serendipity Session which will be held from January 18 through January 31st, 1959.

The British Colonial Hotel, where all sessions will be held, has made it possible for participants and their parties to avail themselves of the facilities of the fully redecorated hotel at the following rates:

From November 28, until December 18, 1958:

\$16.00 per person, per day, two in one room, including breakfast, lunch and dinner;

\$18.00 per person, per day, one in each room, including breakfast, lunch and dinner;

\$8.00 per person, per day, two in one room, European plan;

\$10.00 per person, per day, one in one room, European plan.

From December 29, 1958 until January 31, 1959:

\$20.00 per person, per day, two in one room, including breakfast, lunch and dinner;

\$22.00 per person, per day, one in one room, including breakfast, lunch, and dinner;

\$12.00 per person, per day, two in one room, European plan;

\$14.00 per person, per day, one in one room, European plan.

When making hotel reservations, a check made out to "Bahamas Conferences" for \$75.00 covering the registration fee should be included. It is advisable to make reservations now, as the number of rooms is limited. When reservations are made sufficiently early, any room in the hotel may be booked at the above low rates, on the basis of first come, first served.

An official certificate of attendance will be issued to participants in the conferences. American and Canadian citizens do not re-

Immunization Booklet Issued

A new edition of the booklet "Immunization for International Travel" was issued recently by the Public Health Service, Department of Health, Education, and Welfare.

The booklet is designed primarily for use of travelers going abroad and for health departments and physicians. It gives current details on immunization requirements for persons entering the United States, including Americans returning from abroad. It also lists requirements and recommendations for immunization in 200 other countries, and in some cases, additional recommendations of the Public Health Service for American travelers.

Prepared by the Division of Foreign Quarantine of the Public Health Service, the booklet is for sale by the Superintendent of Documents, Government Printing Office, Washington 25, D.C. for 30 cents.

Bell System to Telecast Science Show

The Bell System Science Series will present its second television program devoted to the working of part of the human body in "Gateways to the Mind," the story of the human senses, which will be seen over the NBC network on Thursday evening, October 23, at 8 p.m., EDT. "Hemo the Magnificent," an earlier program in the same series, was devoted to the story of blood and the circulatory system.

Some fourteen different senses are discussed in "Gateways to the Mind" in explaining how the senses function as the channels through which all knowledge of the external world is passed to the brain. Both scientific documentary film and animation are used in the program. Much of this material will be new to the general public.

After its telecast on October 23, "Gateways to the Mind" will be made available on 16 mm. color film by Bell Telephone companies for group showings to interested organizations.

quire passports. Further information may be obtained by writing to B. L. Frank, M.D., Organizing Physician, 23 East 79th Street, New York 21, New York.

Quarterly Legislative Review

*A special report prepared by the AMA
Washington Office*

The second session of the 85th Congress, beset with space age and other problems and operating in the charged atmosphere of an election year, found time to take up an unusual number of bills of interest to medicine. It passed more than a dozen. Just as notable were two bills that did not pass. While the Forand bill for a hospitalization program under social security failed to clear the House Ways and Means Committee, the committee did order the Department of Health, Education, and Welfare to make a thorough study of the problem of financing medical care of the aged, with emphasis on use of social security. Because the report is due by next February 1, the basic issue is almost certain to come to the front again early in the new Congress. Another major issue left hanging was that of tax-deferment on annuities for the self-employed—the Keogh bill. It went through the House by an overwhelming vote and won the support of 32 Senators, two factors that suggest it may be enacted next year.

Following, we review briefly the provisions of all major health bills enacted in both sessions of the 85th Congress, and outline the prospects for the more important measures that were left by the wayside.

Medicare Appropriations (Public Law 85-724, Aug. 22)

Congress took a long look at the medicare program, now nearing its second anniversary, and decided that the civilian phase of the program had to be curtailed in favor of greater use of military facilities. The House first trimmed \$10.2 million from an admittedly slim budget of \$70.2 million, and then wrote into the Defense Department appropriation a section that would have prevented the services from asking for any supplemental appropriation for the entire fiscal year or using other funds. When it reached the Senate, Medicare and Defense officials joined with the American Medical Association and others in a plea for restoration of funds and elimination of the destructive section. This was accomplished through an amendment sponsored by Senator Knowland (R., Calif.). In the ensuing conference, language was writ-

ten in a report which, while not having the full force of law, nonetheless directed the military to start cutting back on some aspects of civilian medicare. To this end, the Office for Dependents Medical Care announced new restrictions effective this fall. They are aimed at higher military facilities utilization, such as requiring dependents living with sponsors to use military resources unless they are not available.

Social Security Amendments (Public Law 85-840, Aug. 28)

As it has done every election year since 1950, Congress again amended the Social Security Act. It increased Old Age, Survivors and Disability Insurance benefits by 7%, in response to demands that benefits keep pace with the cost of living. It provided an additional \$197 million for public assistance recipients, and gave states greater flexibility in use of federal funds for financing the medical care of the aged, blind, the disabled and dependent children. To finance the liberalizations, the law increases the taxable base from \$4200 to \$4800 of gross employment earnings and raises the tax in 1959 from 2¼% to 2½% for the employer and employee, and from 3 3/8% to 3¾% for the self-employed. Additional increases are scheduled for 1960, 1963, 1966 and 1969. By 1969, the self-employed will be paying 6¾% of earnings.

Congress left the door ajar for consideration by the next Congress of bills using the social security system to provide hospital and medical care for OASDI beneficiaries. An articulate minority wanted this enacted this year via the proposal of Rep. Aime Forand. However, the House Ways and Means Committee directed the administration to make a study and report by next February on the various possibilities for financing medical care for the aged, with particular emphasis on the possible practicability of increasing OASDI taxes and using the money to purchase health insurance on retirement. The AMA took a strong stand against using the social security system to provide such care, viewing it as a beginning of national compulsory health insurance.

White House Conference on Aging (Signed Sept. 2, Awaiting P.L. No.)

The President is instructed to call a White

House Conference on Aging in January, 1961, by a measure passed late in the session. This national meeting will bring together federal, state and local leaders working in the field of aging. Their objective: to arrive at facts and recommendations on the utilization of skills, experiences and energies, and the improvement of the conditions of older people. A final report would be submitted to the President within 90 days after the conference. A series of state-organized meetings would precede the 1961 conference. To help the states finance these meetings, the law provides up to \$15,000 a state with a minimum of \$5,000. These figures, reduced from the original \$50,000 per state, were used with the anticipation that states would also participate substantially in the financing. The AMA gave this legislation its full support; author of the bill was Rep. John Fogarty (D., R.I.).

Chemical Additives in Food (Awaiting President's Signature)

In an 11th hour action, the Senate passed a House-approved bill on the last day of the session which prohibits use of chemical additives in foods until their pre-testing has been approved by the Food and Drug Administration. Elaborate provisions are made for appeals to federal decisions.

Health Appropriations (Public Law 85-580, Aug. 1)

In response to appeals from a number of sources, the 85th Congress set a new high in money voted for the Department of Health, Education, and Welfare, particularly for the U.S. Public Health Service. The latter now is spending at the rate of close to three quarters of a billion dollars a year. Last year PHS received from Congress approximately \$562 million; this year's total is \$745,747,000. Members of Congress find it difficult to vote against more funds for medical research and a myriad of other health programs, once health-oriented House and Senate committees have agreed on certain figures for the ensuing year. Research money for the seven institutes was increased nearly 40% over last year, while the Hill-Burton hospital construction program received a boost of close to 55%. If one is to judge from a recent study group of HEW, the peak of spending in the health field hasn't yet been reached. Congress also voted \$6.9 million for the long-

sought new quarters for the National Library of Medicine.

Hill-Burton Amendments (Public Law 85-589, Aug. 1 and Public Law 85-664, Aug. 14)

Because a full year's notice is deemed necessary in future planning, Congress voted a 5-year extension of the Hill-Burton hospital construction program. The act otherwise would expire next June. In a separate action, Congress amended the act to permit for the first time Hill-Burton loans at the same rate of interest the government pays for its own borrowing. Under the loan act, an applicant would have to comply with all H-B regulations, the same as regular H-B applicants. The extension bill is Public Law 85-664, and the loan act, Public Law 85-589. The AMA testified in support of the Hill-Burton extension.

Defense Reorganization (Public Law 85-599, Aug. 6)

At the prodding of the House Armed Services Committee, the Defense Department is finally reorganizing. The number of Assistant Secretaries of Defense, which Congress felt had grown too large, was trimmed back by one. The affected post in all likelihood will be that of Assistant Secretary for Health and Medical Affairs, which would be downgraded to that of special assistant. The AMA fought hard to have the act make clear that this post would be saved, and it continues hopeful that something can be worked out before the act goes into effect in January.

Public Health School Grants (Public Law 85-544, July 22)

Eleven schools of public health were promised a total of \$1 million annually in federal grants to assist them in professional training, specialized consultative services and technical assistance with the states. The final act was simply an authorization. Efforts were made late in the session by the Senate to add \$1 million to a supplemental appropriation for a number of agencies. This item was knocked out in conference, which means that funds will not be available until the next Congress acts.

Civil Defense Grants (Public Law 85-606, Aug. 8)

To bolster sagging state civil defense programs, Congress voted grants to the states for purchase of radiological instruments, personal equipment for state and local civil de-

fense workers and for administrative and personal expenses. Amounts for the first category would not exceed \$35 million; for the second category, not more than \$2 million, and for the third, not over \$25 million.

Military and VA Pay Schedules
(Public Law 85-422, May 20, and Public Law 85-462, June 20)

General pay raises for the military (P. L. 85-422) included the same increases for physicians in the services. The law also retained the incentive pay schedule for doctors in uniform which has been in effect since 1947. Congress, in a separate act (P.L. 85-462), also approved salary increases for physicians in the Veterans Administration. It voted down a provision that would have given VA optometrists the same professional status as physicians and dentists.

Union Management Health and Welfare Plans
(Public Law 85-836, Aug. 28)

To correct abuses in health and welfare plans, Congress after considerable debate voted a measure requiring both labor and management health and welfare plans to make annual financial reports to the Secretary of Labor. It exempts plans with fewer than 25 members. Fines as high as \$10,000 or five years imprisonment are provided for falsification of reports.

Research Facilities Extension
(Public Law 85-777, Aug. 27)

Two years ago Congress voted a new program of grants to help medical schools and similar facilities doing research in various crippling and killing diseases to construct laboratories and similar buildings or to remodel existing structures. The program was to run for three years, with an annual appropriation of \$30 million. With a backlog of applications, the administration sought an extension for another three years. It also asked for a clarification of "multi-purpose" facilities. In the process, the bill was amended in committee so that money available would have been available for both research and teaching facilities. This back-door approach to medical school aid later was dropped by the committee, because it was felt that it would jeopardize passage of the simple extension.

Doctor Draft Extension
(Public Law 85-62, June 27, 1957)

Under this act passed in the first session, selective service has authority until July 1, 1959 to call certain physicians up to age 35

for military service. Only those doctors with obligations under the regular draft and who have been deferred for any reason may be called. Although the military has been getting enough doctors through new graduates and volunteers, it expects to ask for another extension next year.

Jenkins Keogh Tax Deferral
(Died in Senate Finance Committee)

The drive to give the self-employed equal treatment with the employed in setting aside tax-deferred sums for retirement plans moved closer than ever to enactment. A bill passed the House late in July with only a smattering of opposition. But it died in the Senate Finance Committee; a major factor was Treasury Department insistence it would result in a large tax revenue loss. AMA, in concert with the American Thrift Assembly, pressed hard for enactment. New efforts to get the measure passed in the 86th Congress are being planned.

Community Facilities Loans
(Killed in House)

A bill that started out as an anti-recession measure lost steam as it progressed in Congress. It provided for low-interest loans to states and communities for a wide range of public works, including construction of community hospitals. The measure was voted down in the House after it had passed the Senate.

Medical School Construction Aid
(Died in Congress)

Bills to authorize one-time grants for new and existing medical schools to build classrooms were pending in both House and Senate at adjournment. Extensive hearings were held by the House Interstate health subcommittee. No bill was reported to the floor because of (1) concern over the segregation issue, (2) a question of whether the states have exhausted all resources, and (3) a reluctance of some committee members to spend the money now. The AMA supported one-time grants in its testimony.

Civil Aviation Medicine
(Died with the Congress)

Efforts to establish a Civil Air Surgeon with broad authority in civilian air safety failed to pass. But with creation of the Federal Aviation Agency, administration assurances have been given that the needs of aviation medicine will be considered in setting up the new agency. The AMA was a

strong supporter of the idea of a Civil Air Surgeon.

Veterans Hospitalization (Died with the Congress)

Late in the session as a windup to lengthy hearings on veterans entitlement to VA hospitalization, the House Veterans Affairs Committee reported out an omnibus hospitalization bill. The measure had as its major objective the opening of some 5,000 additional beds which the committee maintains the Budget Bureau is holding back on. It was reported too late for final action. The AMA testified in favor of a clear spelling out by Congress of veterans entitlement to federal care.

Nursing Home Mortgage Guarantees (Died in House)

Efforts to provide new capital for proprietary and non-proprietary nursing homes through FHA-type mortgage loan guarantees failed of passage. The provision, strongly endorsed by the A.M.A., was part of an omnibus housing bill that failed to pass the House under suspension of rules after Senate approval. Last-minute efforts to separate the nursing home portion from the bill and have it enacted also failed.

Southern Medical Association Dedicates New Building

Formal opening of the \$250,000 home of Southern Medical Association was held in Birmingham, Alabama, Sunday, September 7. The new headquarters office building represents several years of planning and more than one year of construction and in the words of Association president W. Kelly West, M.D., Oklahoma City, is "a magnificent monument to Southern medicine." More than 1,000 distinguished guests representing the medical profession, local and state officials, lay and Auxiliary leaders were among those present.

The new home office building is a split-level structure fronting on Highland Avenue at 26th Street South. In addition to providing a meeting place and business center, a library-conference room, Woman's Auxiliary headquarters and other work areas, it contains space for the monthly *Southern Medical Journal*.

SMA, which now has 13,000 members, has maintained headquarters in Birmingham for

Fifty Attend Red River Valley GP Meeting

Fifty physicians, including ten from Texas, registered at the Fifth Annual Meeting of the Red River Valley Section of the Oklahoma Chapter of the American Academy of General Practice. Held at Lake Murray Lodge on September 7, the meeting was the most successful to date.

Most of the physicians, who came from all areas of the state, were accompanied by their families and all took advantage of the excellent recreational facilities which were available. The popularity of the meeting site prompted many to suggest that future meetings be made two day affairs, with lectures in the mornings and afternoons left free for fishing, boating and swimming.

Charles E. Wilbanks, M.D., Tulsa, presided over the morning session which began with an audiovisual presentation on "Disorders of the Heart Beat," a film sponsored by the American Heart Association. Following the film, Rex Kenyon, M.D., Oklahoma City Pathologist, discussed the subject, "How to Get the Most for Your Laboratory Dollar." The morning session concluded with a paper by Kemp Clark, M.D., entitled, "Essentials of a Good Neurological Examination." Doctor Clark is Chairman of the Division of Neurosurgery, Southwestern Medical School, Dallas.

Robert Sturm, M.D., Oklahoma City, served as presiding officer of the afternoon session which began with a presentation by Doctor Kenyon on "Further Considerations of Laboratory Procedures." Finally, a paper by Doctor Clark, "Management of Cerebral Trauma", concluded the scientific portion of the meeting.

Financial support for the meeting was provided by Wyeth Laboratories. District Manager Howard A. Dicken and his associates, Gordon Gunn and R. W. Parr assisted Roger Reid, M.D., Ardmore, in handling local arrangements. Doctor Reid coordinated all activities for the meeting.

43 of its 52 years. It was founded in Chattanooga in 1906 and offices were in Mobile before being moved in 1913.

MEDICO-LEGAL BRIEFS

Prepared by the Law Department of the
American Medical Association

OSTEOPATHY—Prior to July, 1958 Article II of the Constitution of the American Osteopathic Association read as follows:

"The objects of this Association shall be to promote the public health and the art and science of the osteopathic school of practice of the healing art;

"By maintaining high standards of osteopathic education and by advancing the profession's knowledge of surgery, obstetrics, and the prevention, diagnosis and treatment of disease in general;

"By stimulating original research and investigation; and by collecting and disseminating the results of such work for the education and improvement of the profession and the ultimate benefit of humanity;

"That the evolution of the osteopathic principles shall be an ever-growing tribute to Andrew Taylor Still, whose original researches made possible osteopathy as a science."

At the meeting of its House of Delegates, in Washington in July, 1958, Article II of the A.O.A. Constitution was amended so that it now reads as follows:

"The objects of this Association shall be to promote the public health, to encourage scientific research, and to maintain and improve high standards of medical education in osteopathic colleges."

CHEMICAL TESTS FOR INTOXICATION—IMPLIED CONSENT LAW—The State of New York amended its implied consent law on February 19, 1958 to be effective on July 11, 1958. Specifically, Section 71A of the Vehicle and Traffic Law was amended by Chapter 666 of the laws of 1958 to provide that a physician shall not be sued for drawing blood for chemical tests when done at the request of a police officer. Under the new law a suit may be maintained against the state or its subdivisions depending on what police department is involved. The state or subdivision may in turn sue the physician for the amounts recovered by reason of gross negligence or bad faith on the part of said physician.

PHYSICIAN DISPENSING DRUGS WITHOUT PRESCRIPTION—A practicing physician sold three separate lots of dextro-amphetamine hydrochlorine tablets to two Federal agents whom he supposed to be truck drivers. Prior to dispensing them the physician had not prepared or given the agents any prescription, had not physically examined either of them and had not questioned them or "prescribed" a dosage or otherwise attempted to acquaint himself with either the physical condition or needs of either man. The jury of the U. S. District Court convicted the physician for violation of the provision of the Food, Drug and Cosmetic Act that prohibits the dispensing of harmful drugs transported in interstate commerce without a prescription. The U. S. Court of Appeals in affirming this judgment held that the Act applied to physicians.

Brown v. U. S., Court of Appeals for the 5th Circuit; No. 16536; January 3, 1958

ABORTION—The Supreme Court of Washington upheld the conviction of a physician on two counts of aiding and abetting the commission of the crime of abortion. The physician was sentenced to five years in the State penitentiary on each count, the sentences to run concurrently.

State v. Bates, 324 P. 2d 810 (Wash., April 24, 1958)

HOSPITAL STAFF MEMBERSHIP — A Fresno, California physician, specializing in neurosurgery, has brought a suit seeking \$500,000 damages from various physicians, members of staff committees of the Fresno Community Hospital, because of statements they made concerning his ability which resulted in his being dropped from the Fresno Community Hospital staff.

Bailey v. Tuschka et al., in the Superior Court of the State of California In and For the County of Fresno, No. 101580, (1958).

Coming Meetings

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

POSTGRADUATE PROGRAM*

Oklahoma City, Oklahoma

Individual Postgraduate Courses

ARTHRITIS AND RELATED DISORDERS—Nov. 12, 13, 14, and 15

Second Oklahoma Colloquy on Advances in Medicine. The program will be devoted to Arthritis and related disorders. Twelve nationally prominent investigators in their field will participate and present the results of original work from their laboratories.

ADVANCE ELECTROCARDIOGRAPHY — March 2 through 6

(Prerequisite, Dr. Bayley's Basic Electrocardiography course.)

OBSTETRICAL-GYNECOLOGICAL SYMPOSIUM—March 7

Sponsored by the Oklahoma City Obstetrical and Gynecological Society. There will be two prominent guest lecturers.

OPHTHALMOLOGY-OTOLARYNGOLOGY

SYMPOSIUM—March 12 and 13

Sponsored by Oklahoma City Society of Ophthalmology and Otolaryngology.

Guest Lecturers:

Michael J. Hogan, M.D., Ophthalmologist, San Francisco.

Prominent Otolaryngologist to be announced.

ORTHOPEDIC SYMPOSIUM—April 10 and 11

Treatment of Athletic Injuries.

Sponsored by the Regional Committee on Trauma of the American College of Surgeons.

FIFTH ANNUAL COMBINED SURGERY, RADIOLOGY, PATHOLOGY SYMPOSIUM—May 14 and 15

Diagnosis and Treatment of Thyroid Diseases.

Sponsored by the Oklahoma Association of Pathologists, Oklahoma Association of Radiologists and Oklahoma Chapter of American College of Surgeons. Guest participants of national reputation in surgery, radiology and pathology will participate.

OKLAHOMA ASSOCIATION OF HOUSE STAFF PHYSICIANS—May 22

Two guest lecturers and presentation of original papers by members of the various house staffs will highlight this program. Participating hospitals are: Hillcrest Medical Center, Tulsa, St. John's, Tulsa; McBride, Mercy, St. Anthony, University, Veterans Administration, Wesley, Oklahoma City; Central State Hospital, Norman.

SERIAL POSTGRADUATE COURSE

Postgraduate Division

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

Oklahoma City, Oklahoma

1958-1959

Nov. 19—Surgery—Ano-Rectal Lesions and Their Management.

Dec. 10—Medicine—The Selection of Patients for Cardiovascular Surgery.

Jan. 14—Pediatrics—Diagnosis and Management of Heart Disease in Infancy and Childhood.

Feb. 11—Urology Symposium and C. B. Taylor Lectureship. (Guest Lecturer to be Announced.)

Mar. 11—Medicine—Advances in the Diagnosis and Management of Common Allergic Disorders.

April 8—Anesthesiology—Anesthesia for the Part-Time Anesthetist.

May 13 — Pediatrics — Antimicrobial Therapy and Treatment of Infectious Disease in Childhood.

June 10—Surgery—Herniae.

Designed so physicians may attend four hours of formal instruction in the above fields while spending only one-half day from their office, this series is approved for credit by the Oklahoma Academy of General Practice. Time will be 3:30 to 8:30 p.m. on the Second Wednesday of each month, September through June. Registration is \$3.00 per session or \$25.00 for the entire series.

*Further information may be obtained from the Office of Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th Street, Oklahoma City, Oklahoma.

OKLAHOMA CITY CLINICAL SOCIETY

October 27, 28, 29, 1958

Biltmore Hotel Oklahoma City

The Twenty-Eighth Annual Conference of the Oklahoma City Clinical Society will be held October 27, 28 and 29 in the Biltmore Hotel, Oklahoma City. Registration fee of \$20.00 will include all features. Further information may be obtained by writing to: Executive Secretary, 503 Medical Arts Building, Oklahoma City, Oklahoma.

SECOND OKLAHOMA COLLOQUY

ON ADVANCES IN MEDICINE

November 12, 13, 14 and 15, 1958

The Second Oklahoma Colloquy on Advances in Medicine will be held on November 12, 13, 14 and 15. Eleven nationally prominent investigators in their field will participate and present the results of original work from their laboratories.

Registration will be open to all physicians. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

THE UNIVERSITY OF TEXAS CLINICAL CONFERENCE ON CANCER CHEMOTHERAPY

November 14-15, 1958

Houston, Texas

The University of Texas M.D. Anderson Hospital and Tumor Institute and The University of Texas Postgraduate School of Medicine will present the third annual clinical conference on November 14 and 15, 1958 at the Texas Medical Center in Houston.

Eight hours credit will be certified by the American Academy of General Practice for attendance at this conference. An advance \$5.00 registrar's fee must accompany the registration for the Academy. Further information and a detailed program may be obtained from the University of Texas Postgraduate School of Medicine, Jesse Jones Library Building, Houston, Texas.

THE UNIVERSITY OF TEXAS POSTGRADUATE SCHOOL OF MEDICINE

Practical Electrocardiography*

December 15-19, 1958

Houston, Texas

The University of Texas, Postgraduate School of Medicine announces a course in Practical Electrocardiography to be held in Houston, December 15-19, 1958. The course will emphasize Spatial Vector-Electrocardiography. The J.J. and Una Truitt Lecturer for this course will be Robert F. Grant, M.D., of the National Heart Institute.

ANESTHESIOLOGY*

February 18, 19, 20, 1959

Houston, Texas

The Fourth Annual Course in Anesthesiology to be offered by the University of Texas Postgraduate School of Medicine will be held February 18, 19, 20, 1959 in Houston. The course is designed to review

theory and practice of commonly used anesthetic techniques and will include discussions of some of the newer drugs.

*Address all inquiries to: The University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Houston 25, Texas.

AMERICAN CANCER SOCIETY ANNUAL SCIENTIFIC SESSION

SYMPOSIUM ON CANCER OF THE COLON AND RECTUM

October 20-21, 1958

Biltmore Hotel

New York City

A complete program of the Symposium on Cancer of the Colon and Rectum to be presented at the Annual Scientific Session of the American Cancer Society may be obtained by writing to Director, Professional Education, American Cancer Society, Inc., 521 West 57th Street, New York 19, New York.

INTERNATIONAL MEDICAL ASSEMBLY of SOUTHWEST TEXAS

January 26, 27, 28, 1959

Gunter Hotel

San Antonio, Texas

The International Medical Assembly of Southwest Texas will hold its annual meeting January 26, 27, 28, 1959 in San Antonio, Texas at the Gunter Hotel. Further information may be obtained by writing to Mr. S. E. Cockrell, Jr., Executive Secretary, 202 West French Place, San Antonio, Texas.

INTERSTATE POSTGRADUATE MEDICAL ASSOCIATION

November 10-13, 1958

Cleveland, Ohio

Stotler-Hilton Hotel

The 43rd Annual Scientific Assembly of the Interstate Postgraduate Medical Association will be held in Cleveland, Ohio, November 10-13. Write to Erwin R. Schmidt, M.D., Secretary, Interstate Postgraduate Medical Association of North America, Box 1109, Madison 1, Wisconsin for complete details.

SOCIETY FOR CLINICAL AND EXPERIMENTAL

HYPNOSIS

October 29-30, 1958

Chicago, Illinois

The Society for Clinical and Experimental Hypnosis, an International Scientific Society, comprised of physicians, dentists and psychologists engaged in the clinical use of hypnosis, will present a scientific program in Chicago at the Morrison Hotel, October 29-31, 1958.

The program will include Breakfast Seminars, Round-table Luncheons, Panel Discussions and Formal Presentations. The Medical Program will include such topics as: Hypnotherapeutic Control of Habit Patterns: During Addiction, Smoking, Overweight; Hypnosis in Physical Therapy and Rehabilitation; Hypnosis in Asthma and Allergic Manifestations; Use and Abuse of Hypnosis in General Practice; Hypnosis in Pediatrics and Geriatrics; Hypnosis in Minor and Major Surgery; Hypnosis in Internal Medicine; Hypnoanesthesia in Obstetrics; Physiology of Hypnosis; and Hypnosis in Psychiatry.

Immediately preceding the Annual Meeting of the Society for Clinical and Experimental Hypnosis, the Institute for Research in Hypnosis of the Long Island

University Postgraduate School will present its Annual Workshop in Clinical Hypnosis, October 27-29, at the Morrison Hotel.

Registration for Breakfast Seminars, Round-table Luncheons and General Sessions will be limited. For a copy of the program and more detailed information, write to the Administrative Secretary, Society for Clinical and Experimental Hypnosis, 750 North Michigan Avenue, Chicago 11, Illinois.

ACADEMY OF PSYCHOSOMATIC MEDICINE

October 9-11

New York, New York

The fifth annual meeting of the Academy of Psychosomatic Medicine will be held October 9-11, 1958, at the Park Sheraton Hotel in New York City. The program will be devoted to the Psychosomatic Aspects of Internal Medicine and will include formal papers, panel discussions and luncheon conferences.

Information may be obtained from Bertram B. Moss, M.D., Suite 1035, 55 East Washington Street, Chicago 2, Illinois.

SYMPOSIUM on the TREATMENT OF LYMPHOMAS and LEUKEMIAS

sponsored by

American Cancer Society, Oklahoma Division

**Venetian Room
Skirvin Hotel**

**9:00 a.m. — 5:00 p.m.
DECEMBER 6, 1958**

**Oklahoma City,
Oklahoma**

PANELISTS

William Dameshek, M.D.
New England Center Hospital
Boston, Massachusetts

Leon O. Jacobson, M.D.
Argonne Cancer Research Hospital
The University of Chicago
Chicago, Illinois

Leon Dmochowski, M.D.
Chief, Virology & Electron
Microscopy Section
M.D., Anderson Hospital & Tumor
Institute, Houston, Texas

Wayne Rundles, M.D.
Duke University
School of Medicine
Durham, South Carolina

Organization News

Council, Delegates Meet; Medicare Contract Terminated

Highlighting a weekend of meetings which were held at the Executive Office, was the unanimous vote of the Delegates on September 21, to withdraw the O.S.M.A. from the administrative and operative phase of the Dependents' Medical Care Program. The action taken by the delegates followed the recommendations of the Association's Medicare Committee which were endorsed by the Council on the preceding day.

Background

Budgetary economies imposed by the 85th Congress precipitated the withdrawal of the Association from any official responsibility toward the operation of the drastically curtailed Medicare Program. After Congress made a severe cut in monies to be allocated for this purpose, the Department of Defense called representatives of state medical societies into Washington and announced details of a restricted health program which were to become effective on October 1. In addition to requiring dependents who reside with their sponsors to obtain certification from their commanding officer prior to receiving care from civilian sources, other restrictions were made in benefits, principally in regard to maternity care, injuries, termination visits, pre and post surgical tests, neo-natal visits, nervous and mental diseases, acute emotional disorders and elective surgery.

The Medicare Committee's recommendation for the Association to withdraw as contracting agent for the Oklahoma phase of the program was presented to the Council on Saturday afternoon, approved and relayed on the following day to the Delegates who were called in by President E. C. Mohler, M.D., for the Medicare Problem only. Accompanied by two committee members, Doctors Tom Points and William Renfrow, Doctor Brown outlined the committee's reasons for recommending the termination of the contract as follows:

1. The principles of Free Choice of Physician has been abruptly terminated by re-



Marshall O. Hart, M.D., reports to the Council.

striction of all dependents living with sponsors to care in military installations.

2. The decision as to type of medical care to be rendered has been placed largely in non-medical hands.

3. Untenable restrictions have been placed on the private physician who elects to care for these dependents.

4. Unnecessary hospitalization is once again being given impetus by the exclusion of benefits for office treatment of bodily injuries.

5. Administration of the program has become logistically impractical for the Oklahoma State Medical Association.

Resolutions Passed

After hearing Doctor Brown's report and the Council's recommendation for approval, the House of Delegates took unanimous affirmative action on the following resolution:

"Resolved, by the House of Delegates of Oklahoma State Medical Association, in special meeting assembled September 21, 1958, that said Association immediately terminate its participation in the Medicare Program.

Be it Further Resolved, that the individual members of the Association are not hereby prevented from rendering care to patients entitled to the benefits of said program, but members will hereafter deal directly with such agent as

may be appointed to administer the program."

During discussion, it was pointed out that the Medicare Committee will terminate its activities on October 1, but that physicians should continue to process claims with Blue Shield until further notice. Details regarding the termination of contractual obligations are yet to be worked out.

Other Council Actions

Medicare was only one of many subjects covered by the Council. During the six hour session, the group:

1. Approved the appointment of D. W. Branham, M.D., Oklahoma City, to the *Journal* Editorial Board, replacing Eugene Rice, M.D., Shawnee, deceased.

2. Concurred in the names proposed to serve on the new Blue Shield Liaison Committee.

3. Referred a request by an O.U. graduate student to publish historical medical records and transcribed interviews to the Editorial Board for further recommendation.

4. Appropriated \$250.00 in prize money for the Oklahoma phase of the forthcoming American Association of Physicians and Surgeons' Essay Contest.

5. Heard a report by Councilor Duer concerning the activities of the Oklahoma Osteopathic Association which has, among other things, promoted a hospital bond issue in his district containing a dual staff provision and referred this and other osteopathic matters to the Public Policy Committee.

6. Received a report on the Garfield County service-type Blue Shield Plan from Henry T. Russell, M.D., Enid, and referred the question of the propriety of such a program to the Blue Shield Liaison Committee.

7. Adopted an interprofessional code, prepared by the Association's Committee on Medico-Legal Relations, for subsequent negotiation with the Oklahoma Bar Association and final approval by the House of Delegates.

8. Became familiar with the AMA Health Program for Older Citizens, as presented by Hayden H. Donahue, M.D., Chairman of the Association's Committee on the same subject, and concurred in his desire to take immediate steps toward implementing the program within the state.

9. Heard reports from Mark R. Johnson,

Branham Joins Editorial Board



A recent addition to the editorial staff is Donald W. Branham, M.D., of Oklahoma City. Doctor Branham is a urologist and a graduate of the Oklahoma School of Medicine where he is the chairman of the Department of Urology. He also holds a fellowship in the American Medical Writers Association.

M.D., Chairman of the Committee on Medical Care for Public Assistance Recipients, and Ben H. Nicholson, M.D., Editor of the *Journal*, concerning the advisability of encouraging the Department of Public Welfare to contract with Blue Shield for the medical care of such recipients. After much debate, it was moved and passed that the Committee should make further study, but be instructed that a service type program would be unfavorable.

10. Agreed to provide assistance toward any catastrophic situation which may occur during the 1960 National Boy Scout Jamboree, providing the tentative selection of McAlester as the site is confirmed.

Program Completed For Oklahoma City Clinical Society

Fifteen prominent guest lecturers will highlight the Twenty-Eighth Annual Conference of the Oklahoma City Clinical Society which will be held in the Biltmore Hotel, October 27, 28 and 29. Features of the meeting will include: general assemblies, clinical pathologic conference, round-table luncheons, specialty lectures, dinner meetings and commercial exhibits. The completed program follows:

Monday, October 27, 1957

GENERAL ASSEMBLY LECTURES:

- 9:00 a.m.—NATURAL CHILDBIRTH
EDWIN J. DeCOSTA, M.D., (Obstetrics) Associate Professor of Obstetrics and Gynecology, Northwestern University Medical School, Chicago, Illinois.
- 9:30 a.m.—CURRENT THOUGHTS ON HYSTERECTOMY
JOHN ALEXANDER WALL, M.D., (Gynecology) Clinical Associate Professor of Gynecology, Baylor University College of Medicine, Houston, Tex.
- 10:00 a.m.—VISIT THE EXHIBITS
- 10:30 a.m.—PRECANCEROUS DERMATOSES
LOUIS A. BRUNSTING, SR., M.D., (Dermatology) Professor of Dermatology, Mayo Foundation, University of Minnesota Graduate School, Rochester, Minnesota.
- 11:00 a.m.—PRESENT STATUS OF THE USE OF CORTICOTROPIN AND CORTICOSTEROIDS IN ALLERGIC STATES
JOHN M. SHELDON, M.D., (Allergy) Professor and Director, Department of Postgraduate Medicine, Head of Allergy Clinics, University of Michigan Medical School, Ann Arbor, Mich.
- 11:30 a.m.—THE DIAGNOSIS OF PSYCHONEUROTIC REACTIONS
C. KNIGHT ALDRICH, M.D., (Psychiatry) professor and Head Department of Psychiatry, University of Chicago School of Medicine, Chicago, Illinois.

SPECIALTY LECTURES:

- 9:30-11:00 a.m.—UROLOGICAL RADIOGRAPHY
RUSSELL B. ROTH, M.D., (Urology) Consultant Urologist, U.S. Veterans Administration Hospital, Erie, Pa.
- 9:30-11:00 a.m.—TUBE FEEDING
JAMES BARRON, M.D., (Surgery) Associate Surgeon, Division of General Surgery, Henry Ford Hospital, Detroit, Mich.
- 12:15 p.m.—LUNCHEON—ROUND TABLE DISCUSSION

GENERAL ASSEMBLY LECTURES:

- 2:00 p.m.—MANAGEMENT OF CONGESTIVE HEART FAILURE
C. THORPE RAY, M.D., (Medicine) Professor and Chairman Department of Medicine, University of Missouri School of Medicine, Columbia, Missouri.

- 2:30 p.m.—MENTAL RETARDATION
BLAIR E. BATSON, M.D., (Pediatrics) Professor and Head Department of Pediatrics, University of Mississippi School of Medicine, Jackson, Miss.
- 3:00 p.m.—VISIT THE EXHIBITS
- 3:30 p.m.—MECHANISMS OF NATURAL RESISTANCE TO INFECTIOUS MICROORGANISM
PARKER R. BEAMER, Ph.D., M.D., (Pathology) Professor of Pathology, Indiana University School of Medicine, Indianapolis, Indiana.
- 4:00 p.m.—THE INTERPRETATION OF THE VARIOUS TESTS IN EXAMINING A BACK
CLAUDE N. LAMBERT, M.D., (Orthopedic) Professor of Orthopedic Surgery, University of Illinois College of Medicine, Chicago, Illinois.
- 4:30 p.m.—EXTERNAL DISEASES OF THE EYE
HAROLD GIFFORD, JR., M.D., (Ophthalmology) Associate Professor of Ophthalmology, University of Nebraska College of Medicine, Omaha, Nebr.

SPECIALTY LECTURES:

- 2:30-4:00 p.m.—SYSTEMATIC LUPUS ERYTHEMATOSUS AND DERMATOMYOSITIS IN CHILDHOOD
Louis A. Brunsting, M.D.
- 2:30-4:00 p.m.—THE MEDICAL COMPLICATIONS OF PREGNANCY
Edwin J. DeCosta, M.D.
- 7:30 p.m.—BANQUET—SPONSORED BY THE OKLAHOMA COUNTY MEDICAL SOCIETY
Guest Speaker—RUSSELL B. ROTH, M.D., Erie, Pa.

Tuesday, October 28, 1958

GENERAL ASSEMBLY LECTURES:

- 9:00 a.m.—DAILY PRACTICE AND THE STETHOSCOPE
E. GREY DIMOND, M.D., (Medicine) Professor and Head Department of Medicine and Director of Cardiovascular Laboratory, University of Kansas Medical Center, Kansas City, Kansas.
- 9:30 a.m.—THE ITCHING SKIN
Louis A. Brunsting, M.D.
- 10:00 a.m.—VISIT THE EXHIBITS
- 10:30 a.m.—CLINICAL PATHOLOGICAL CONFERENCE
Parker R. Beamer, M.D.
C. Thorpe Ray, M.D.

SPECIALTY LECTURES:

- 9:30-11:00 a.m.—DIFFERENTIAL DIAGNOSIS AND TREATMENT OF BENIGN UTERINE BLEEDING
John A. Wall, M.D.
- 9:30-11:00 a.m.—CLINICAL AND PATHOLOGIC CORRELATION OF CATARACTS
Harold Gifford, Jr., M.D.
- 12:15 p.m.—LUNCHEON—ROUND-TABLE DISCUSSION

GENERAL ASSEMBLY LECTURES:

- 2:00 p.m.—NOBLE PPLICATION OPERATION FOR PERITONEAL ADHESIONS
James Barron, M.D.
- 2:30 p.m.—THE PHYSICIAN'S ROLE IN MANAGEMENT OF PSYCHONEUROTIC REACTIONS
C. Knight Aldrich, M.D.
- 3:00 p.m.—VISIT THE EXHIBITS

- 3:30 p.m.—EXPERIENCES IN ATTEMPTING CONVERSION OF AURICULAR FILBRILLATION
E. Grey Dimond, M.D.
- 4:00 p.m.—ALLERGIC DRUG REACTIONS
John M. Sheldon, M.D.
- 4:30 p.m.—THE ANALYSIS OF JOINT DISEASES BY THE RADIOLOGIST
ISADORE MESCHAN, M.D., (Radiology) Professor and Director, Department of Radiology, Bowman Gray School of Medicine of Wake Forest College, Winston-Salem, N.C.

SPECIALTY LECTURES:

- 2:30-4:00 p.m.—THE PRESENT STATUS OF PANCREATICODUODENECTOMY FOR MALIGNANT TUMORS IN THE REGION OF THE HEAD OF THE PANCREAS WITH PARTICULAR EMPHASIS ON FACTORS WHICH REDUCE MORTALITY
JOHN T. REYNOLDS, M.D., (Surgery) Associate Professor of Surgery, University of Illinois College of Medicine, Chicago, Illinois.
- 2:30-4:00 p.m. — ACTIVE IMMUNIZATION — FACT AND FANCY
Blair E. Batson, M.D.
- 6:30 p.m.—SOCIAL HOUR—SPECIALTY GROUP DINNERS

Wednesday, October 29, 1958

GENERAL ASSEMBLY LECTURES:

- 9:00 a.m.—DIAGNOSIS AND TREATMENT OF ADENEXAL TUMORS
John A. Wall, M.D.
- 9:30 a.m.—HAZARDS OF OPERATION ON THE BILIARY TRACT
John T. Reynolds, M.D.
- 10:00 a.m.—VISIT THE EXHIBITS
- 10:30 a.m.—THE SHOULDER, HAND, ARM SYNDROME
Claude N. Lambert, M.D.
- 11:00 a.m.—MODERN CONCEPTS OF PRENATAL CARE
Edwin J. DeCosta, M.D.
- 11:30 a.m.—EMERGENCIES IN THE NEWBORN
Blair E. Batson, M.D.

SPECIALTY LECTURES:

- 9:30-11:00 a.m.—SEROLOGICAL AND CLINICAL EXPERIENCE WITH ADENO VIRUS IN ASTHMATIC PATIENTS
John M. Sheldon, M.D.
- 9:30-11:30 a.m.—HISTOPLASMOSIS: PATHOGENESIS IN RELATION TO THERAPY
Parker R. Beamer, M.D.
- 12:15 p.m.—LUNCHEON — ROUND-TABLE DISCUSSION

GENERAL ASSEMBLY LECTURES:

- 2:00 p.m.—THE REPAIR OF RECURRENT INGUINAL HERNIAS
James Barron, M.D.
- 2:30 p.m.—DISEASES OF THE RETINA AND CHOROID
Harold Gifford, Jr., M.D.
- 3:00 p.m.—VISIT THE EXHIBITS
- 3:30 p.m.—PROBLEMS IN THE DIFFERENTIAL DIAGNOSIS OF CHEST DISEASES
Isadore Meschan, M.D.

- 4:00 p.m.—THE ROLE OF SURGERY IN THE TREATMENT OF MAJOR GASTROINTESTINAL TRACT HEMORRHAGE WITH EMPHASIS UPON TIMING OF THE OPERATION
John T. Reynolds, M.D.
- 4:30 p.m.—PYELONEPHRITIS—AN UNMET CHALLENGE
Russell B. Roth, M.D.

SPECIALTY LECTURES:

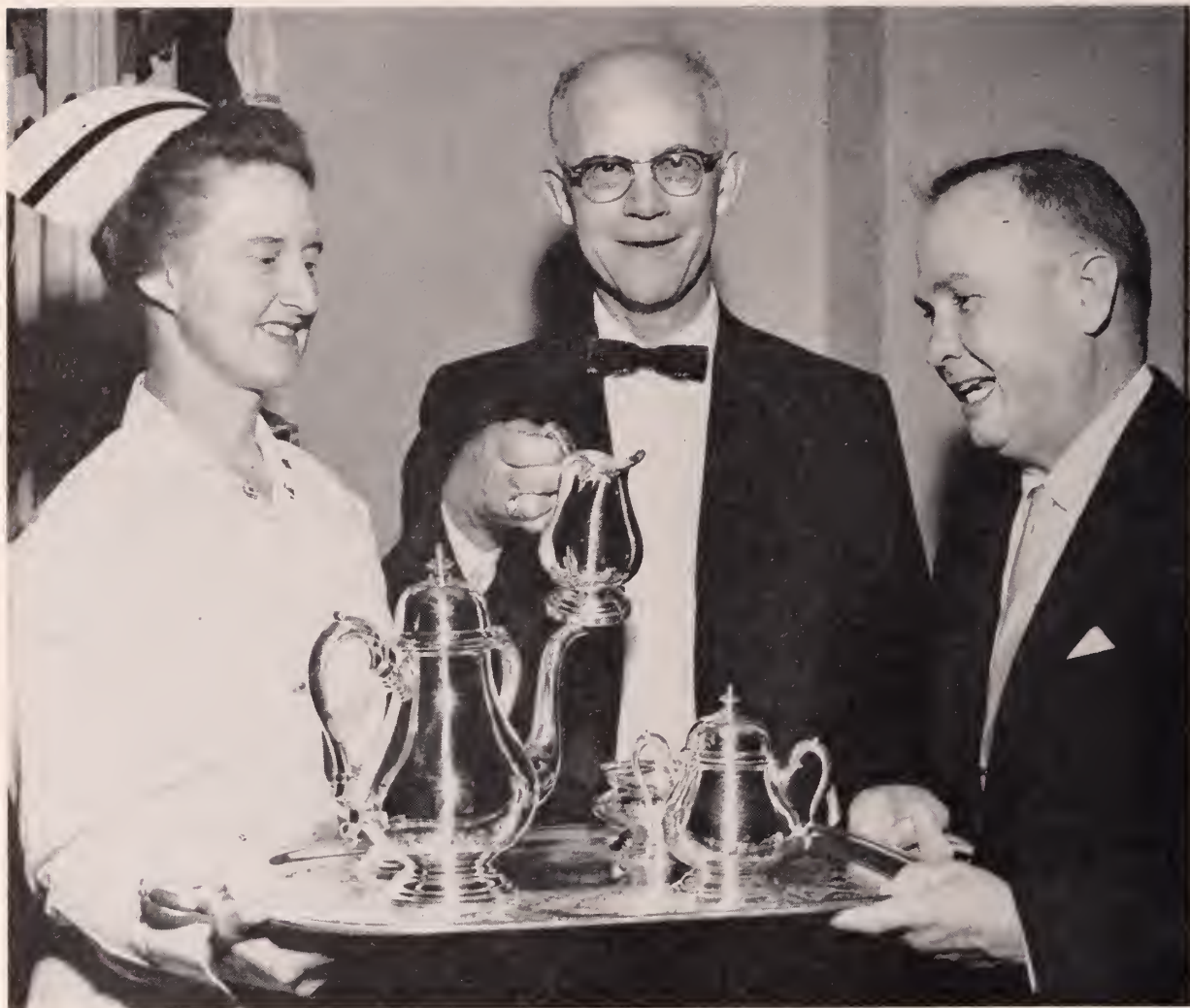
- 2:30-4:00 p.m.—DIURETIC THERAPY
C. Thorpe Ray, M.D.
- 2:30-4:00 p.m.—THE USE AND ABUSE OF FEMORAL REPLACEMENT HIP PROSTHESES
Claude N. Lambert, M.D.
- 7:00 p.m.—ANNUAL DINNER-DANCE—SPONSORED BY THE OKLAHOMA CITY CHAMBER OF COMMERCE
Persian Room—Skirvin Tower Hotel

Registration fee for the Conference is \$20.00. Further information and a program may be obtained by writing to: Oklahoma City Clinical Society, 503 Medical Arts Building, Oklahoma City, Oklahoma.

Woman's Auxiliary to Hold Fall Conference in October

The state fall conference of the Woman's Auxiliary to the Oklahoma State Medical Association will be held Tuesday, 9:30 a.m., October 14, 1958, at the State Medical Building, 601 N.W. Expressway, Oklahoma City. Mrs. Iron Hawthorne Nelson, Tulsa, president, and Mrs. Clifford M. Bassett, Cushing, president-elect, will bring reports of the national Auxiliary convention held in San Francisco, and the national Fall Conference recently held in Chicago. The new plans and projects for the state auxiliary will be presented by Mrs. J. J. Maril, Oklahoma City, state program committee chairman. The state officers and chairman of standing committees will have a part in the day long program. The county president, county committee chairmen, district councilors, and members at large from every section of Oklahoma will attend.

Events scheduled for the day include an early morning coffee, the executive board meeting, a surprise conference program and a luncheon. The annual fall conference is anticipated as the beginning of activities for the auxiliary year. Mrs. J. F. Blaschke will be in charge of arrangements.



New Lottinville Award for Excellence in Nursing was presented Mrs. Jenell D. Hubbard, left, Director of Nursing Service for the University of Oklahoma hospitals. With her are Dr. Mark R. Everett, dean and director of the Medical Center, and Savoie Lottinville, right, award donor and Director of the University of Oklahoma Press.

O.U. Nurse Wins Lottinville Award

Mrs. Jenell D. Hubbard, director of nursing service for the University of Oklahoma hospitals, has received the first Lottinville Award for Excellence in Nursing, presented jointly by the Oklahoma State Medical Association and the University of Oklahoma School of Medicine.

The award was established this year by Savoie Lottinville, director of the University of Oklahoma Press, Norman, in an effort to stimulate interest in the nursing profession. It consists of a certificate in Latin, the text set in Centaur type, and a Georgian Castle silver service.

Each year the award will be made to the outstanding graduate of either the diploma or the degree nursing program of the University of Oklahoma.

Adhering to the donor's wishes, selection will be made on the basis of excellence in class, ward and laboratory work; personal character, standing among fellow students and teacher; and potential influence as an active worker and leader in nursing.

Mrs. Hubbard was chosen by a committee representing OSMA, the School of Medicine, and the School of Nursing.

She was given the award September 3 at

School of Nursing finishing ceremonies at the Medical Center. Dr. Mark R. Everett, director and dean of the University of Oklahoma Medical Center, made the presentation.

Mrs. Hubbard is a candidate for the Bachelor of Science in Nursing degree. Graduating from the diploma program of the O.U. School of Nursing in 1946, she has served as staff nurse, head nurse, supervisor, instructor and then director of nursing service at the Medical Center. She is active in state and national professional organizations.

Twenty-four other nurses received school pins and diplomas during the program. Miss Ada Hawkins, director of the School of Nursing, presented them. Principal speaker was Doctor George Lythcott, instructor in the Department of Pediatrics.

Lottinville's daughter, Mrs. Marie Lottinville Livesay, is a 1957 graduate of the O.U. nursing program.

C. J. Masterson Cited By Association

C. J. "Connie" Masterson, prominent Oklahoma City pharmacist, was honored by the Oklahoma State Medical Association at a luncheon held September 12 in recognition of service to the medical profession resulting from his sponsorship of a health education radio program for the past ten years. The presentation of a hand-lettered, gold framed Certificate of Appreciation by John F. Burton, M.D., 1957-58 President of the O.S.M.A., culminated efforts which began last spring to demonstrate the gratitude of the medical profession for the unselfish efforts of Mr. Masterson. His weekly radio programs on station KOCY, Oklahoma City, have done much to not only provide the public with authoritative health information, but have also led to a better understanding of the medical profession in general.

The unusual award was suggested by Mr.

Carlton Beck of KOCY who contacted Doctor Burton about Mr. Masterson's contribution to better public understanding of medicine. Doctor Burton subsequently introduced the recommendation before the Council during the May, 1958 meeting and it was unanimously agreed that a commendation be issued in the following form:

"WHEREAS for ten years various transcribed radio series such as 'Tell Me Doctor' have pioneered and accomplished a most laudable result in bringing to the public news of the very latest medical discoveries, discussions of important health subjects and pertinent information of benefit to good health and

WHEREAS a most sincere man originally supported and has continued to support these programs entirely at his own expense with a motivation of bringing authoritative health information to the public and

WHEREAS these programs have caused many favorable comments both on the part of the general public and the medical profession

THEREFORE BE IT RESOLVED that the Oklahoma State Medical Association's House of Delegates assembled this Fourth day of May, 1958 go on record as unanimously giving C. J. Masterson a vote of appreciation for this unselfish and worthwhile endeavor."

The luncheon, which was held at the Lakeview Country Club, was attended by Mr. Masterson and his wife, Maude M. Masterson, M.D., Mr. Beck, Doctor Burton, James Amspacher, M.D., President of the Oklahoma County Medical Society, Glenn Jones, President of the Oklahoma County Pharmaceutical Association, Carroll Freeman, Executive Secretary of the Pharmaceutical Association, Dick Graham and Don Blair of the OSMA office and Alma O'Donnell, Executive Secretary of the Oklahoma County Medical Society.

Philip Herod, M.D. Receives 50 Year Pin



Clinton A. Gallaher, M.D., Speaker of the Association's House of Delegates, is shown presenting Philip Herod, M.D., with a Fifty Year Pin as Joseph T. Phelps, M.D., looks on.

At a September 8 meeting of the Canadian County Medical Society, Philip F. Herod, M.D., El Reno, received recognition for fifty years of medical service when Clinton Gallaher, M.D., Speaker of the O.S.M.A.'s House of Delegates presented him with a 50 Year Pin. The event was held during the regular staff meeting of the Park View Hospital, El Reno. Physicians from El Reno and surrounding communities were present to honor Doctor Herod.

The EENT specialist graduated from University Medical College, Kansas City, in 1908. He received his Oklahoma license in the same year.

In addition to Doctor Gallaher who traveled from Shawnee to make the presentation, other guest well wishers were Ben H. Nicholson, M.D., Oklahoma City, Editor of the *O.S.M.A. Journal* and Dick Graham and Don Blair of the Association's Executive Office.

Journal Staff to Attend Texas Conference

Representatives of the *Journal of the Oklahoma State Medical Association* will participate in the Regional State Medical Journal Conference to be held in Austin on October 18 and 19. Designed to fill the gap between biennial meetings sponsored by the State Medical Journal Advertising Bureau, the regional meetings were begun two years ago when the Medical Association of Georgia promoted the first conference.

Don Blair, Associate Business Manager of the *Journal* and Mrs. Louise Martin, Editorial Assistant, are scheduled to represent Oklahoma. The Transcript Company, *Journal* printer, is planning to send their representative, Mr. Gene Nance, as they have done in past conferences.

An outstanding roster of guest speakers has been assembled by the Texas Medical Association, this year's sponsor. The program participants are: De Witt C. Reddick, Ph.D., Professor and Acting Director of the School of Journalism, University of Texas, Austin; Millard J. Heath, Executive Secretary, Dallas County Medical Society; Jack Woodside, Director of Production, Fuller and Smith and Ross, Inc., Publications Counselor for Eli Lilly, Cleveland; Alfred J. Jackson, President, State Medical Journal Advertising Bureau, Chicago; James T. Barnes, Executive Secretary, Medical Society of North Carolina, Raleigh; Philip R. Overton, LL.B., General Counsel, Texas Medical Association, Austin; Tom Jarvis, Assistant Managing Editor, *Journal of the Florida Medical Association*, Jacksonville; Edgar Woody, M.D., Editor, *Journal of the Medical Association of Georgia*, Atlanta; James M. Liston, Editor, *Today's Health*, Chicago; and, Bernice M. Moore, Ph.D., Assistant to the Director, Community Programs and Professional Education, the Hogg Foundation for Mental Health, and Consultant, Home and Family Life Education, Texas Education Agency, Austin.

Don Blair will preside over the October 18 afternoon session and moderate a panel covering such subjects as printing, office overhead and advertising solicitation.

AMA Program On Aging Presented at Planning Conference

Representatives of state medical societies assembled in Chicago on September 13-14 for an AMA sponsored planning conference designed to kickoff a national health program for older citizens. The Oklahoma delegation was comprised of Hayden H. Donahue, M.D., Chairman of the State Association Committee for the Health Care of the Aged; Committee members Henry H. Turner, M.D., and Samuel C. Shepard, M.D., John W. DeVore, M.D., Forrest Brown, M.D., John Grey, M.D., and John F. Burton, M.D., member of the AMA's Council on Medical Service.

The purpose of the meeting was to coordinate medicine's activities in the field of aging and to stimulate individual and community responsibility, rather than wait for the passage of a political solution to the problem.

Members of the Oklahoma Committee will meet soon to begin planning the implementation of the state phase of the national program. The AMA six-point program is outlined briefly below. More detailed information will be disseminated by the OSMA Committee in subsequent issues of *The Journal*.

The Program

The six-point program has been developed as a basis for action by medicine in the field of aging. It offers a challenge to medical societies at national, state and local levels. It recognizes that the special needs of senior citizens ultimately must be related to persons. Consequently such needs should be met as far as practical at that level closest to the individual.

Medical and health problems of aging and the aged embrace special social, economic, psychological, physiological, and occupational considerations. Approaches to the solution, prevention, or reduction of these problems affect both young and old; they call for community and individual action.

Preparation for old age, to be realistic, must begin in youth and continue throughout life. This need for preparation has become increasingly important. It should be recognized and acted upon by all people.

Immediate problems of the older person concern recognition of his role in the community together with the condition under which he works and lives. *Every element of daily living ought to be examined in the light of all factors, including those peculiar to him and those common to all persons.* Such areas would embrace health maintenance; hospitals, nursing homes and related facilities; financing medical care; income maintenance; employment and retirement; housing; recreation; education; and individual, family and community responsibilities.

The present and anticipated size of the aged population makes it imperative that medical societies at all levels foster efforts aimed at:

1. Stimulation of a realistic attitude toward aging by all people.
2. Extension of effective methods of financing health care for the aged.
3. Expansion of skilled-personnel training programs and improvement of medical and related facilities for older people.
4. Promotion of health maintenance programs and wider use of restorative and rehabilitative services.
5. Amplification of medical and socio-economic research in problems of the aging.
6. Cooperation in community programs for senior citizens.

State and local medical societies have been urged to establish committees on aging capable of providing leadership at the levels where this program ultimately must be implemented. It is anticipated these committees will serve both as a stimulus to medical society action and as advisors to other groups on medical and related matters in the field of aging.

Because of the dynamic character of the problems, any program must be flexible. This one may need to be adapted to apply more closely to state and local needs. The objectives it sets forth, emphasizing the roles in aging which medicine should urge upon the community, the family, and individuals of all ages, however, are basic to satisfactory solutions of the aging problem.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association October, 1933.

ECTOPIC PREGNANCY AND ITS TREATMENT

R. B. GIBSON, M.D., Panca City

Riolamus in 1604, was the first to describe definitely a case in which the foetus was found in the fallopian tubes. As far back as 1594, a Primeron operated a woman and found a dead foetus in a cyst, which had formed near the umbilicus. Many such operations were performed at long intervals, but Lawson Tate in 1883, was the first to operate deliberately on a case of tubal rupture.

This condition is one which in my opinion is very important for it is not very rare, and is one that I consider a real emergency. Shuman estimated that at least one tubal pregnancy occurred to every 300 normal pregnancies. My reason for saying that this is an important subject is, if we can recognize these cases early, and institute proper treatment we can save nearly all of them, but if we fail to diagnose them we often fail to give them proper treatment, and the patient is lost because of our mistakes.

Mortality

Statistics show us that in an efficient hospital with competent surgeons the mortality should not be over four per cent, while in 1876, just seven years before Tate's first operation, Parry published the results of five hundred cases treated conservatively with 7.2 per cent mortality. With a comparison of these figures we can feel sure that radical treatment is correct, and we cannot pay too much tribute to the gynecologists who have advanced our knowledge of the pathology, diagnosis and treatment of this condition.

Editorial Notes—Personal and General

DR. AND MRS. FRED C. REWERTS, Bartlesville, will spend the next four months in Europe, where Dr. Rewerts will take postgraduate work in Vienna.

DR. KEILLER HAYNIE, Durant, son of Dr. John Haynie, graduated from the University of Medicine in June, 1933. He is now serving his internship in the University Hospital, Oklahoma City.

"... ST. JOHN'S HOSPITAL, Tulsa, has offered to take over the care of county patients, promising a reduction of approximately \$30,000. The Board of Governors and staff of the hospital stated that in their opinion the county work should be divided between the two larger hospitals, St. John's and Morningside.

Deaths

ALBERT CATES, M.D.

1879-1958

Albert Cates, M.D., retired pioneer Oklahoma physician, died in Oklahoma City, September 5, 1958.

Born in Bonanzo, Texas in 1879, Doctor Cates taught school for four years in Hopkins County, Texas before entering the University of the South at Sewanee, Tennessee. He graduated from the Memphis Hospital Medical College in 1906 and the same year began his practice of medicine at Lula, Oklahoma. Later, he practiced in Tueplo and Ardmore and moved to Oklahoma City in 1921.

Doctor Cates served as County Health Superintendent for many years. In addition to his membership in the State and American Medical Associations, Doctor Cates was a member of the Southern Medical Association.

JOHN F. HACKLER, M.D.

1910-1958

John F. Hackler, M.D., 47-year-old, Muskogee physician, died September 4, 1958. He was born in Tahlequah in 1910 and graduated from the University of Oklahoma School of Medicine in 1933.

Doctor Hackler entered private practice in Seminole, later becoming Director of the Payne County Health Department. In 1940, he received his master's degree from John Hopkins University, specializing in public health.

After serving as director of the field advisory staff of the Oklahoma Health Department for three years, Doctor Hackler served five years as the first full-time Professor of Preventive Medicine and Public Health at the University of Oklahoma School of Medicine.

In addition to serving on the Committee of the American Public Health Association that worked with the American Medical Association in establishing the American Board of Preventive Medicine and Public Health to certify specialists, Doctor Hackler served as Chairman of the Records Committee of the State Health Department and was on the Board of Directors of the Oklahoma Division of the American Cancer Society.

Since 1948, Doctor Hackler has been Director of the Muskogee city-county health unit.

A SOUND PRESCRIPTION

. . . For Your Own Financial Welfare

As a doctor, you're busy enough with the problems of your own profession. Yet you can't ignore the demands of financial matters, no matter how little time you have.

But here's a suggestion that not only saves time for you . . . it saves you all the worries you may face when you seek secure investment possibilities. By investing now in United States Savings Bonds, you get maximum security for your hard-earned funds plus a generous return on your money.

By putting at least part of your income into Savings Bonds, you avoid the problems of market fluctuations . . . you get absolute safety for your investment . . . and a sure yield.

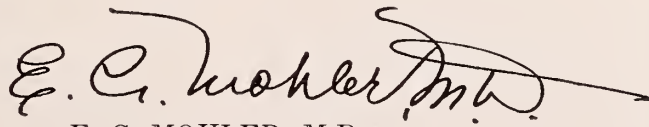
Series E Bonds pay you $3\frac{1}{4}\%$, compounded semi-annually, when held to their maturity of 8 years, 11 months. The interest earned is added to the cash value every six months. Series H Bonds pay you a current income, by semi-annual check, with a full yield of $3\frac{1}{4}\%$ when held 10 years. And they are always redeemable at par.

With either investment, you build up a tidy-nest-egg for retirement or other future plans—and still maintain a cushion that is available as cash when you need it.

Prescribe this step for yourself and you own peace of mind. Then—start your own best medicine promptly. Your local bank will help you set up a regular bond purchase plan, if you like.

There's no wiser therapy for your investment headaches than Savings Bonds.

Cordially,



E. C. MOHLER, M.D.
President

PHYSICIAN PLACEMENT

General Practice

William Z. Cook, Jr., M.D., 1614 Wolverton, Ardmore, Oklahoma, age 31, married, graduated from University of Oklahoma School of Medicine, 1955. Will be available November 1, 1958 upon completion of service.

Albert Stanley Bailey, Jr., M.D., P.O. Box 1381, Westhampton Beach, L. I., New York, age 28, married, graduated from University of Oklahoma, 1955, presently in military service, will be available May, 1959.

John W. Kennard, M.D., 20 Olson Lane, Fort Rucker, Alabama, age 26, married, graduated from Bowman Gray School of Medicine, 1956, presently in military service, will be available September, 1959.

Robert Nordling, M.D., 508 Perreizeau, Spartanburg, South Carolina, age 38, married, graduated from University of Nebraska, 1958, over present age limit for military duty, will be available July 1, 1959. (Doctor Nordling has expressed an interest in a town that is near a large lake.)

Gladys Smith, M.D., 800 N.E. 13th, Oklahoma City, Oklahoma, single, graduated from University of Oklahoma School of Medicine, 1947, board qualified in Radiology and is interested in doing a combination of general practice and Radiology.

John D. Wise, Booneville, Arkansas, age 30, married, graduated from University of Arkansas, 1954, veteran, available immediately.

Gerald C. Zumwalt, M.D., 1701 Avenue P, Del Rio, Texas, age 27, married, graduated from University of Oklahoma, 1956, veteran, will be available July, 1959.

Locum Tenens

Don Allen Mills, M.D., 3911 Burns Place, S.E., Washington, D.C., age 34, married, veteran, graduated from Georgetown University School of Medicine, 1958, wants to do general practice for two years prior to specialized training. Will be available July 1, 1959.

Psychiatry

C. Frank Knox, M.D., 1922 Northwood Apartments, Ann Arbor, Michigan, married, age 32, graduated from Washington University, St. Louis, Missouri, 1954, veteran, now completing a four years psychiatric residency, will be available June, 1959.

Surgery

(Name on Request) 32 years old, married, graduated from Tulane, 1952, veteran, board eligible in surgery.

CLASSIFIED ADS

OBSTETRICIAN-GYNECOLOGIST WANTED: Excellent opportunity, progressive 3 man group, community 30,000. Well established, complete clinic and hospital facilities. Board qualified. Equity interest without investment after probation. Write Key C, c/o The Journal Oklahoma State Medical Association, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

ORTHOPEDIC SURGEON, also Pediatrician to head departments. Excellent opportunity. Write Cooper Clinic, Cooper Clinic Building, Fort Smith, Arkansas.

FOR SALE: Physicians equipment including 100 M.A. Westinghouse x-ray with fluoroscope. \$2,500.00. Will sell x-ray separately. Contact Bob Grundy, Grundy Rexall Drug, Comanche, Oklahoma.

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C. C. FARR

720 Medical Arts Bldg.

Dallas, Texas

Editorials

Epilogue

There is little to be said concerning the chance the Association had to help Blue Cross-Blue Shield develop a medical care program for the recipients of the Public Welfare Department. The Association's Committee on the problem made no recommendations to the Council. The Chairman simply stated that the Committee saw no need to pursue the matter further unless the Council would approve a service contract. This the Council refused to do in the *laissez-faire* style characteristic of organized medicine. Concerning a service contract the following was received the next day from Henry Russell, M.D., of Enid.

THE SERVICE CONTRACT

Probably no other question in the economics of medicine today creates such widespread difference of opinion among the doctors as the question of a fixed fee schedule versus the traditional practice of basing fees on the patient's ability to pay. The principal argument for the latter method is based on the doctor's characteristically independent feeling that "no one is going to tell me what to charge the patient for the services I render." In principle this idea is good, but in actual practice it has created some problems that the doctors must face or continue the present decline from their previous lofty perch of high esteem in the public mind.

One of the most serious abuses of which the doctors are guilty concerns the frequent practice of hiking their fees whenever they find that the patient has insurance. As a group, we may deny this vigorously and display our wounded pride, but as individuals the insurance companies can produce all too many obvious examples of this practice for us to ignore. This unhealthy practice creates one of two results, depending on the type of insurance. Firstly, if the patient has an indemnity type policy he ends up paying a much larger "difference" than is fair or justified. Secondly, if he has a service type policy the insurance company ends up paying the maximum fee in practically every

case, despite the fact that these maximum fees have been established for unusual or difficult cases. The doctor's usual fee is often lower than the maximum fee granted by the insurance company. Insurance companies pay claims out of income, so what goes out must come in; therefore when claims go up premiums are always going to go up and hospitalization and health insurance is gradually being priced out of the range of the middle income group who need it most.

Proponents of the graduated fee schedule also argue that the fixed fee schedule does not allow for compensation in complicated or difficult cases or for variations in training, skill and experience of the individual doctors. For every difficult or complicated case, there is a simple and easy case of the same type to offset it, and the rule of averages eliminates the need of charging more for the difficult case. However, even in a fixed fee schedule, provisions can be made for the difficult or complicated case if desired, so long as limitations are placed on the number of cases reported by the individual doctor.

The argument that additional skill, training and experience deserve additional compensation is invalid with our present day attitudes in the practice of medicine. In hospitals where physicians are restricted in their practice this problem is taken care of by this restriction. Whenever a doctor is granted the privilege of doing certain procedures in a hospital or whenever he presumes to do any procedure in his office it is assumed by the patient that he can perform this procedure with the skill of any other doctor in the vicinity, or the patient would probably go to another doctor whom he considered to be more skillful. The medical profession cannot point its finger at an individual doctor and say that he is more skillful or less skillful than another, and therefore should receive a higher or lower fee for a particular procedure. Young doctors entering a community to practice rarely begin practice with lower fees despite their relative inexperience. Ultimately the patient

must decide who is going to care for him, and in the patient's mind his doctor is always worthy of as high or higher fee than any other doctor in the community. The members of the medical profession compensate the unusually skillful doctor by referring to him patients they feel they cannot care for adequately. This skillful doctor thereby prospers by an increased volume of patients.

The arguments for a fixed fee schedule are mainly based on two proposals. One: Fees for any service, medical or otherwise should be based on the service rendered rather than on the patient's ability to pay. Two: A fixed fee schedule prevents the "soak the rich" feeling that sometimes develops in patients when an unduly large fee has been charged merely because they have been financially successful.

A fee commensurate with the service rendered is certainly the basis of most American enterprises. The public invariably discovers and resents whenever any group or individual charges more than a service is actually worth. With the development of such aids as the California Relative Value Schedule, it should be fairly easy for the medical profession to place a fair and equitable fee on their services. Although all doctors may not entirely agree with every figure in such a schedule, minor inequities will almost always be balanced by other minor inequities in the opposite direction. For example: an individual doctor might be unusually skillful in performing an operation for hernia and he might feel that the fixed fee schedule would not compensate him adequately for this particular operation. On the other hand this doctor may also do gastric resections with considerable less skill. Even so he still received the same relative fee despite his lack of skill in gastrectomy.

The tradition of increasing fees to patients with higher incomes certainly creates considerable misgivings in the minds of many people. It is interesting that this practice has existed so long in medicine when one considers that doctors as a group are in a higher than average income bracket. Should we not consider several practices that affect our own payments to other peo-

ple? The most obvious "soak the rich" practice in this country is that legal one perpetrated by the government and known as the Federal Income Tax. This devastating, confiscatory tax, which penalizes a person for increased initiative, intelligence and endeavor is certainly little different than a graduated medical fee schedule that does the same thing. As a group, doctors greatly dislike the Federal Income Tax schedule which penalizes us a higher amount percentage wise the harder we work. By and large the income of persons other than the medical profession is also based on their training, abilities, and willingness to work. Why then, should the medical profession penalize these more energetic people by charging higher fees for the same procedure when we ourselves resent this practice so greatly. This is not a capitalistic practice, but is a socialistic practice with the same basic result of ultimately reducing everyone's savings and income to the same level.

In the purchase of other services and products people often have the privilege of determining the price category which they wish to pay or which they can afford to pay. The quality of the product or the quality and quantity of the services can legitimately vary, based on the price. However, this is not true in medicine. Every doctor is morally and ethically obligated to render this best service to the patient regardless of the patient's ability to pay. Since the service rendered is therefore always of the same quality for every individual doctor there should be a fixed maximum fee for this service. For the relatively few people who cannot actually afford to pay a reasonable fixed maximum fee, then discounts could be given proportional to the patient's need. This is in the highest tradition of medicine as we are all obligated to render service even when no compensation will be available. Since most of these extremely poor patients are now being cared for through various social agencies of the government and since approximately 65% of the American people are now partly or completely covered by private insurance or by Blue Shield-Blue Cross, doctors income would suffer very little through any reduction in the fixed maximum fee.—*Henry Russell, M.D.*

Is Boxing Immoral?

Doctor Eugene G. LeForet in the *Linacre Quarterly* discusses the sport of boxing from a medical and moral aspect. He is inclined to believe that "boxing as a sport, because it has for its prime and direct object the physical injury of the contestants would therefore differ intrinsically from all other forms of athletic endeavor and should demean more than casual scrutiny by the medical profession."

The medical profession well knows that injuries which produce transient and even permanent disability are not uncommon to the sport of boxing; injury to the brain, the eye, the kidney are the usual sites of traumatic effect. And the punch drunk boxer who ends his days in a semi-vegetative existence is a notable example of the sad harm which may be produced by subjecting man's most glorious and precious possession—his brain—to the destructive effects of repeated blows to the head. Even death is not unusual. But although death may result from boxing accidents it may be of interest that according to statistics boxing stands only third in the number of deaths produced—baseball is first. Yet, as Doctor LaForet explains, the difference is that in baseball the injury sustained is secondary and incidental to the sport, while in boxing the primary objective of the contest is to produce physical injury.

It seems strange, almost paradoxical, that a profession which is based exclusively on the tradition of compassionate concern for one's fellow man and trains them to have respect and consideration to almost a reverence for the living tissues of which human beings are composed would see justification in boxing. It would appear that a sport which by its very nature negates the humanistic principles on which the profession of medicine is founded would almost outrage the professional sensibilities of any thinking physician.

Boxing may or may not be immoral. That probably depends upon one's own definition and standard of morality. However, it would seem logical to assume that to a physician aware of the significance and meaning of his profession it would at least be a sport aesthetically objectionable. —D.W.B.

Diabetes Detection and Education

Each year the American Diabetes Association promotes Diabetes Detection and Education Week, this year designated November 16 to 22, 1958. Much literature will be distributed and many testing units will be set up throughout the United States.

12,104 tests were made in the Oklahoma County School system last year and of these, 14 proven cases or one out of 864, were discovered. These 14 previously had not known they had diabetes. Each was referred to his family physician and should now be under satisfactory control.

What is the Diabetes Detection Drive? It is a year round effort to find our unknown diabetics and guide them to medical care. The Drive is sponsored by the American Diabetes Association, which was founded by and is composed of physicians. The Association works through 42 local Affiliate Associations and through nearly 900 Committees on Diabetes organized within State and County Medical Societies.

The year-round effort is featured by an annual, nationwide Diabetes Week, during which as many persons as possible are screened for diabetes.

Why is it important to me as a practicing physician to cooperate in the Diabetes Detection program?

Helping to detect diabetes is one way of giving better medical care to more people. Out of every 160 patients that come to a physician's office, one may be an unknown diabetic. The physician who wants to improve the care of his patients will want to detect diabetes as early as possible in the people for whom he is medically responsible.

Have you permitted patients to come into your office and omitted a urine test occasionally, at least once a year?

I have. Why? Too busy, have not been reminded about diabetes, or why?

It is hoped that this notice and DIABETES WEEK will be a reminder to all of us to be more alert in the detection and proper control of diabetes.

—Hugh Jeter, M.D.

Scientific Articles

DISEASES of the SMALL INTESTINE

PHILIP W. BROWN, M.D.

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Diseases of the small intestine are chiefly inflammatory processes; a smaller group consists of various tumors.

Viral Enterocolitis

Of inflammatory diseases of the small intestine, the most common is viral enterocolitis or so-called stomach and intestinal flu. We know that this is a disease caused by a virus, probably carried in food and water, and passed along from one person to another. Although viral enterocolitis usually is short lived, the patient can be miserable and distressed for 12 to 48 hours. Most frequently all that is necessary is to keep the patient quiet, administer sufficient codeine or paregoric to control the symptoms, and allow him such fluids and simple foods as he may wish to ingest. In an occasional case in which the infection is more devastating and is accompanied by considerable prostration and fever, it may be necessary to administer fluids intravenously and to employ larger doses of a narcotic agent, such as one grain of codeine given hypodermically or $\frac{1}{4}$ to $\frac{1}{2}$ grain of morphine. After such an attack it is not uncommon for the victim to experience some degree of cramping and abdominal misery for several days. In such instances the stools should be examined and proctoscopic and roentgenologic examinations should be done so that it can be certain that there is no organic disease which is becoming manifest. If results of these studies are negative, the patient can be advised positively that irritability of the bowel is not uncommon after gastric distress of this nature, and that it will subside. I urge the patient to eat and drink what he knows, from his own experience, will be satisfactory to him

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and perhaps supplement the food and drink with a simple sedative agent such as $\frac{1}{2}$ grain of phenobarbital taken two or four times daily. Another helpful agent is a 10-mg. spansule of prochlorperazine (compazine) taken once or twice per 24 hours.

Regional Enteritis

Of the chronic inflammatory diseases which we see, regional enteritis¹ is more frequently encountered than others. Nonetheless, regional enteritis is a rarity, because we see only about one instance of it to 10 instances of ulcerative colitis. Tuberculosis of the small bowel used to be the most common acute and chronic infection, but the incidence of this disease has subsided with the decline in human and bovine tuberculosis.

The acute phase of regional enteritis is not often proved unless the abdomen is surgically explored on the basis of a preoperative diagnosis of a ruptured appendix, ulcer or the like. At such a time the small bowel presents a diffuse, red, thickened and angry appearance which may extend from a few to many centimeters in length. In the great

*The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

majority of such cases the process will subside, especially if incidental surgery is not done, such as appendectomy.

Regional enteritis is a curious disease of unknown origin. It is a nonspecific granulomatous process which may involve any segment of the small intestine and may regress into the stomach or proceed all the way down the bowel to the anus. In the acute phase it is characterized by necrotizing, ulcerating inflammatory changes, and in the chronic phase by cicatrizing inflammatory changes. In 90 per cent of patients the lower or terminal portion of the ileum is involved. External fistulas develop in about 20 per cent of these patients and are usually the aftermath of a previous exploratory procedure. Internal fistulas between loops of the intestine are present in more than 50 per cent of patients. In about seven or eight per cent the fistulas are both internal and external.

A helpful clue may be afforded by the fact that about 20 per cent of patients with regional enteritis have an anal fistula. Hence, when a patient who has a simple anal fistula is more depleted and ill than would be warranted by the presence of such a lesion, the possibility of regional enteritis should be kept in mind.

Regional enteritis is chiefly a disease of young people. It has been found in patients as young as four years, but it can develop in patients beyond the age of 70 years. However, more than half of the patients who have regional enteritis are between the ages of 16 and 30 years.

The two main manifestations of this disease are well known. First, if much ulceration and inflammation are present, diarrhea, fever and cramping will be prominent. Second, if there is more hyperplasia with features of obstruction, the patient will have cramps and pain with less diarrhea and less evidence of inflammatory reaction or fever.

Medical management has not been too satisfactory. Nonspecific measures, such as physical and mental rest, the administration of blood, use of a high-protein diet with a low residue, and vitamin supplements and

sulfonamide compounds, especially those of low solubility, such as azulfidine, may be used. However, none of these measures has been of more than temporizing value, in my experience. Much enthusiasm has been displayed in some areas for the use of steroids. We tried steroid compounds for a considerable time. In a number of instances the steroids do seem to provide some benefit; in other cases rather unhappy complications, both psychic and structural, have arisen. Although we are not averse to using one of the steroids for a brief period, we feel that continued use of these hormones is certainly not the answer to the problem. Continued use introduces the serious risk of dependency on the drug as well as the known complications.

Surgical procedures for regional enteritis have been disappointing for those patients who have more of the inflammatory component of the disease or have extensive involvement of the bowel. When the hyperplastic, obstructing phase is dominant, removal of the segment of intestine thus affected offers a good prognosis. It is remarkable how much of the small intestine can be removed, with the patient still maintaining good nutrition. At times, removal of as little as a few inches of the ileocecal coil may result in profound intestinal dysfunction and malnutrition, whereas at other times good nutrition and health may be maintained when only two or three feet or even less of the small bowel remains. I cannot explain this paradox.

Results of operation in this select group of patients have been excellent: at least 80 per cent or more are benefited. Whether the exclusion operation with ileocolostomy should be done or resection of the involved portion of bowel plus ileocolostomy should be carried out is a question I do not propose to settle. I simply comment that if conditions are such that the risk is warranted, resection of the diseased loop of bowel is advisable.

We have tried roentgen-ray treatment for several years, particularly when the disease has been extensive and has been associated with predominance of the inflammatory component. Roentgen-ray treatment has

been administered to more than 150 of our patients, with encouraging results for probably 20 per cent. In some instances the treatment not only has been of no value, but has been followed by a rather sharp flare-up of diarrhea and hemorrhage. Roentgen-ray therapy is worth a careful trial when serious and extensive involvement of the bowel is at hand. We have had a few patients in whom healing progressed to such a degree that stricture resulted. Stricture required operation; when the involved portion of bowel was removed, the patient continued in excellent health.

Diverticula of the Small Intestine

Diverticula of the small intestine formerly were regarded mostly as anatomic curiosities. It is well known that diverticula can occur anywhere in the gastrointestinal tract, from the throat to the anus. It used to be thought that diverticula in the small intestine rarely caused symptoms. It was realized, of course, that inflammation and hemorrhage or perforation could arise in a diverticulum, but such events were most infrequent. It was also assumed that because the intestinal flow through the small intestine is so rapid, the very speed of the transit constituted a reason why these diverticula did not become seriously involved by disease.

Recently, however, some very interesting problems of malabsorption, with or without steatorrhea, and often associated with macrocytic anemia, have been encountered and they seem to be due to infection in diverticula of the small bowel.² For some years it has been noticed that in a number of instances steatorrhea is associated with macrocytic anemia. Investigators have not been too certain whether diverticula scattered through the small bowel might or might not be a factor in such an association or whether diverticula are simply coincidental. It has been demonstrated recently that in some instances macrocytic anemia and evidences of malabsorption with diarrhea and steatorrhea have been corrected by either removal of the segment of the bowel containing diverticula or by the giving of a course of tetracycline for several days

to control the infection. It is thought that the antibiotic agent decreases the infection in these pockets and permits the absorption of the essential B₁₂ factor. Proof that this could happen was found by the use of radioactive vitamin B₁₂ in studies of absorption in which it was possible to demonstrate normal absorption of B₁₂ tagged with radioactive cobalt when the patient with macrocytic anemia had received preliminary doses of tetracycline. When the use of tetracycline ceased, it was not long before the anemic phase recurred and absorption of B₁₂ did not take place.

I mention the foregoing because the condition in question does occur, even though it is rare. It is prudent to keep in mind these most interesting and curious problems of infected diverticula complicated by macrocytic anemia. Conversely, the sprue-like syndrome or macrocytic anemia should not be ascribed too hastily to the presence of diverticula in the small bowel. Perhaps the issue could be settled by administering the antibiotic and observing the response to it for a few days.

Solitary Ileal Ulcer

Another curious lesion of the small bowel is the solitary ulcer, which is found most often in the ileum. Not many cases of this lesion have been reported. When a patient has had abdominal distress with or without hemorrhage, a solitary ileal ulcer ought to be considered. A surgeon may encounter solitary ileal ulcer when he explores patients who have obscure abdominal symptoms. The ulcer is found chiefly in men. It is cured by removal of the diseased segment of ileum. I have wondered if heterotopic tissue could be the basis for these ulcers, but none has been found. If such tissue actually had been present once, I presume that infection subsequently progressed to a point at which the original area was destroyed.

Meckel's diverticulum, with or without inflammatory changes, is well known, and I shall not review it.

Sprue

Without becoming involved in a discussion of sprue and other varieties of steator-

rhea, I merely wish to mention the rather amazing and encouraging response of this disease in some cases to a gluten-free diet.³ On the basis of the very definite clinical and objective improvement which ensues after use of this diet, it might be speculated whether sprue is a manifestation of allergy or of some similar type of tissue reaction. It may seem simple to omit wheat from the diet, but actually it is a dietetic chore. Rye and also oatmeal contain some gluten and may need to be excluded. We have seen remarkable and really striking improvement follow use of the gluten-free diet. Prior to this diet, there was no measure of much value for the patients with nontropical sprue we have seen. Since 1930 our resources and skill often proved all too futile in more than 400 cases of nontropical sprue. Improvement may take place only after three to six weeks of use of the gluten-free diet, and relapse is prompt if gluten is reintroduced into the diet.

Benign Tumors of the Small Bowel

I merely wish to summarize various tumors of the small intestine, so that they may be kept in mind for possible reference when the occasion arises. I shall list them in order of relative frequency. Probably the most common benign tumor is the adenoma, which comprises at least a third of all benign tumors of the small bowel. A very interesting manifestation has been noticed in respect to this group of tumors. That is, some patients with adenomas of the small bowel have associated melanin spots on the oral mucosa. These spots may be situated along the lips or on the buccal surface of the cheeks, and the condition which they reflect is referred to as the "Peutz-Jeghers syndrome."⁴ It is not related to familial adenomatosis of the colon. However, the state is thought to be a simple mendelian dominant character which will go through families. Although the lips and the buccal mucosa are the most common sites of these curious pigmented areas, the pigmentation also may be found on the extremities. In the latter locations the pigmentation cannot be looked upon as too significant. The adenomas are true benign tumors, and carcinoma as a complication of the Peutz-Jeghers syn-

drome is indeed rare. The symptoms are those of the mechanical effects of a tumor, or hemorrhage, or intussusception or obstruction. The important factor to remember is that these curious freckles or pigmentation on the lips or cheeks should suggest the possibility of these curious intestinal tumors.

Leiomyoma is the next most common type of benign tumor of the small bowel. Leiomyomas arise from muscular coats of the bowel, and develop chiefly in the jejunum, next to the duodenum and last in the ileum. They seem to grow to a point at which they undergo central necrosis, which impairs their blood supply. This results in degeneration with hemorrhage, which is the striking feature of a leiomyoma.

Other tumors are fibroma, lipoma, hemangioma, neurofibroma, pancreatic rests and various forms of cysts. Another is the endometrioma, which is rare. Clinically, it is beyond any usual means to identify one lesion of the small bowel from another. About the best the physician can do is to sense, by well-developed clinical suspicion, that there is an obstruction in the intestine or hemorrhage caused by some lesion in the small intestine. Unless there are some changes caused by obstruction, even though the changes need not be extreme, the radiologist is not too much help to us because the barium flows through too rapidly to permit adequate detection.

It is most important that we, and particularly those who do surgery, remember the error that can be perpetrated by interpreting a tumor mass of the small bowel as being malignant when the nature of the lesion has not been proved by biopsy. I cannot stress this warning too much.

Malignant Tumors of the Small Intestine

About two or three per cent of all of the malignant tumors of the gastrointestinal tract develop in the small intestine. Carcinoma actually is the most frequent malignant tumor of the small bowel. Sometimes the statement that sarcoma is more common than carcinoma in the small intestine is confusing. Actually the statement is not quite true

and it needs to be modified. The fact is that sarcoma is found in the small intestine more frequently than in the stomach or colon, but carcinoma still occurs more often than sarcoma. Whether the lesion is sarcoma or carcinoma, the chief symptoms are those of obstruction, which causes decrease in the intake of food, with loss of weight and anemia. Unfortunately, these cancers progress to a point at which they are inoperable before symptoms are sufficient to call attention to the situation.

Carcinoids

A most interesting discussion within the past two years has concerned carcinoids of the intestinal tract. Some carcinoids, but not all of them, have the curious function of producing a substance known as "serotonin." These small orange-yellowish tumors may occur any place in the gastrointestinal tract. They have been found in the ovary and occasionally in the lung, but most of them develop in the gastrointestinal tract. More than 90 per cent of them are situated in the appendix, and the other 10 per cent are distributed throughout other areas.⁵ Of 565 extra-appendiceal carcinoids, nearly 500 occurred in the ileum. They also were present in the rectum, the stomach, the duodenum and so on. Metastasis is associated with a carcinoid tumor; at the time the patient is seen the degree of metastasis may vary from a high incidence of 75 per cent for carcinoids of the small intestine to 25 per cent for gastric carcinoids. The curious phenomenon arising from the production of serotonin was noted by Björck and co-workers⁴ in 1952 after they had seen flushing, asthma, diarrhea and pulmonary stenosis in a patient who had a carcinoid with metastasis. Without going into details of the studies which led to the identification of serotonin, we can say that the presence of serotonin can be ascertained by examination of the urine. Serotonin, or 5-hydroxytryptamine, is eliminated in the urine as 5-hydroxyindolacetic acid. It can be determined by a fairly simple test of a 24-hour specimen of urine. It must be remembered that not all carcinoids, even when metastasized, will produce serotonin. The clue that a carcinoid is present may rest on the recognition and awareness of the fact that a patient experiences

flushing not otherwise explained. If such flushing occurs in women, it is likely to be ascribed to hot flashes.

Comment

Of course, the problem involved in all tumors of the small intestine, whether they are malignant or benign, is the question of removal. The lesions should be removed whenever possible. If the more positive signs of anemia, with or without obstruction, are present, the situation becomes less of a puzzle. On many other occasions the suspicion will arise that the difficulty is functional, and hence the diagnosis may be made of symptoms of an irritable bowel or neurosis of the gastrointestinal tract. I know of no way to avoid this error. On the one hand, the clinician must be constantly aware of the bizarre events that can take place in the small intestine; on the other, he must not be too quick to make a positive decision. Often it will be necessary to ask the patient to report for additional investigation from time to time. Yet the clinician must not become so impressed by the laboratory studies or the findings of the roentgenologist that he ceases to weigh the whole problem and neglects to arrive at the final decision himself. A continual reminder of the importance of the history and the physical findings as correlated with the various studies is a good thing. It is all too easy to dismiss the problem as "functional" when the "results of tests are negative." Indeed, the danger inherent in an alarmist attitude and the danger in too-ready assurance of the patient that "all is well" are equally real.

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DISEASES *of the* LARGE INTESTINE

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In considering problems involved in diseases of the large intestine, I propose to discuss phases of functional conditions and then to consider the more common organic diseases such as ulcerative colitis, diverticulitis, malignant tumors and acute infections such as amebiasis and bacillary dysentery.

Functional Disorders

As is true of most any system of the body, patients who have functional disorders of the intestine outweigh those with organic disorders. My colleague, Doctor E. G. Wakefield, has said, "A distinguishing feature of a functional disorder is its inordinately inception and its progress to an unpredictable conclusion."¹ A functional disorder is a physiologic disturbance and is not the result of any primary intoxication or deficiency state according to present knowledge. It may mimic or imitate any known disease of the digestive system. However, the symptoms of functional disorders are not associated with fever, leukocytosis or any physical abnormality that can be found on examination. Likewise, the usual studies, such as a proctoscopic examination and a barium enema of the colon, will establish the absence of disease. These disturbances of function usually are expressions of tension and stress associated with living conditions, work and the type of eating. A large group of people have colonic irritability as an aftermath of acute intercurrent viral enterocolitis. While most people recover from such episodes of enteritis in two to four days, an appreciable number may have trouble for weeks or even months. Their trouble usually is worse if they receive treatment on the presumption that they might have actual changes in the intestine, such as enteritis or colitis. By the same token, one must, of course, be sure that such changes are not present. However, I wish to stress

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the fact that these "irritable bowel" affairs with cramping and loose stools are extremely common, but an actual disease process is not demonstrable.

A troublesome term that has bothered physicians through the years is "mucous colitis," which of course is not a true colitis; it is merely the excessive secretion of mucus expelled from the intestine by these nervous people. The trouble comes not from passing mucus, which is on the same basis as an increase in perspiration or in pulse rate when under tension, but from the emphasis that is laid on the fact that passage of mucus is due to colitis. This is a gross error that, in itself, breeds thoughts and fears of serious trouble.

The management and treatment of functional disorders of the intestine, as with other functional problems, are largely a matter of the patient's endeavoring to get his mind and emotions into better order. Probably the least important factor is diet, be it food or beverage, and I advise the patients that their diet is up to them. Sedation, such as with phenobarbital or prochlorperazine (compazine), is wise. The main thing is the assurance that disease is not present. One usually accomplishes a good deal with these functional problems, but some patients have a fixation or obses-

*The Mayo Foundation, Rochester, Minnesota, is a part of the Graduate School of the University of Minnesota.

sion neurosis that is really a psychotic state. In such instances, one is at a loss to be of much help.

Chronic Ulcerative Colitis

Chronic ulcerative colitis fortunately is not a common disease. Yet internists, especially those concerned with gastroenterology, encounter an appreciable number of patients each year who have chronic ulcerative colitis. At the Mayo Clinic, my associates and I see in the neighborhood of 500 to 600 patients each year with this disease. These are not all new patients; many of them come for return visits and checkups. Chronic ulcerative colitis remains a disease of unknown cause. It is frequently the aftermath of some acute infection, which usually involves the gastrointestinal tract but which may be respiratory in nature. It also appears to occur with emotional upsets, and this has led to the enthusiastic and incorrect opinion that ulcerative colitis is chiefly a psychosomatic disease, which it is not. In other cases, the onset may be insidious and characterized by the passage of bloody mucus, intestinal irritability and unrest and, not uncommonly, a recent history of hemorrhoidectomy with no benefit. However, more careful study reveals that the patient has an ulcerative process of the rectum, which may extend into the sigmoid or even farther.

Ulcerative colitis develops most commonly in patients from 20 to 40 years of age, and some 60 per cent of the cases occur in this age group. However, four per cent of patients who have ulcerative colitis are less than 10 years of age, whereas two per cent of the patients do not experience symptoms until they are more than 60 years old. In the latter group, the fear that the patient may have cancer is often present.

Until such time as the presently unknown etiologic factor can be identified, and until physicians learn why some patients have this disease and some do not, the treatment must remain on a nonspecific and symptomatic basis. It is most important to have studies of the stool to rule out the possibility of amebiasis, bacillary dysentery or infection with some less common agent.

Likewise, sigmoidoscopic studies and a barium enema of the colon are essential before one can consider that a proper examination of the colon has been accomplished.

In the over-all management of these patients, one must deal first with the basic principles of trying to obtain quiet and peace. I use the phrase "peace and protein," the first word of which emphasizes the necessity for these patients to live at a more gentle and restful pace than they otherwise would like to live. Most patients who have ulcerative colitis are high-gearred and of a higher level of intelligence than the average. In the acute phases, rest in bed under as pleasant conditions as possible is important. Beyond this, there is no reason why the patients should not be up and around. People with this disease are better out of the hospital than in it, if their condition permits. These patients also should have a nourishing, high-protein diet. It is more important to get these people to eat than to be too fussy or particular about a little seasoning or spices or whether food is fried. It is amazing how people become enamored with the idea that condiments, such as ketchup or mustard, or fried foods are simply lethal. It is true that these things may not agree with them; if so, they should not eat them. However, it is well to remember that two of the commonly used foods for invalids, namely milk and citrus fruits, cause most of the reactions resulting from food sensitivity. Vitamins have their value only in the sense that they may supplement deficiency of eating. I thoroughly approve of using vitamins, but they must not be looked on as food.

Sedation, particularly in the tense, nervous, frightened patient, is most important; as already noted, phenobarbital or compazine taken two to four times a day is often helpful.

When a patient has a great amount of cramping and diarrhea, codeine and paregoric used judiciously are of help. There is the fear of addiction, but such is most unusual in these patients. If the patient is anemic, blood transfusions are of great value. Not only do they replace lost blood

and restore normal blood volume but they apparently add something to improve the resistance of the patients.

In the acute phases of ulcerative colitis, there may be a definite need for some of the antibiotics, such as penicillin, streptomycin or the broad-spectrum antibiotics of the tetracycline group. Any of these drugs in themselves may tend to cause diarrhea if used too long, and these agents are employed only when acute manifestations are present that might be attributed to impending perforation. For the more chronic phases of the disease, an ideal drug is still not available. However, a chemically combined preparation of salicylate and sulfapyridine known as salicylazosulfapyridine (azulfidine) helps control symptoms in many patients who have ulcerative colitis. This drug is used in intermittent courses, such as taking it for five to 10 days at a time with rest intervals of five to 10 days. Sometimes it is given for seven to 10 days each month. A few patients will do much better to take two to five tablets daily for relatively long periods. This drug apparently controls the diarrhea and cramping, although I have not the slightest idea as to how it works. Measurable levels of the drug are not present in the blood or urine, and cultures of the stools show no change. Only rarely does one find a patient who is sensitive to this sulfa drug.

It has been almost inevitable that steroid hormones should be tried in the treatment of ulcerative colitis. Experience at the clinic dates from 1951, when my colleagues and I noted improvement in the complications, such as iritis and arthritis, as a result of such therapy. However, we were disappointed that little or no change occurred in the colitis itself. As time has passed, our enthusiasm for either oral or hypodermic use of these hormones has waned. The steroids are not curative, although they sometimes may be effective therapeutic adjuncts. Whether it is wise to use them only for a short period or for a prolonged one is not agreed. I prefer the short-term use of the hormones, being fearful of side effects as well as the establishment of a dependency for the drug.

At the meeting of the World Congress of

Gastroenterology in Washington, D. C., in May, 1958, two papers were presented on the use of rectal instillation of hydrocortisone succinate; one paper was by Truelove,² of Oxford, England, and the other was by McGivney and Patterson,³ of Galveston, Texas. These men advocated nightly retention enemas of 100 ml. of an isotonic solution of sodium chloride containing 100 mg. of hydrocortisone. The patient is urged to retain this solution as long as possible. We have found that $\frac{1}{2}$ or 1 grain of codeine, orally administered 30 minutes before the instillation, appears to favor longer retention of the hormone. Favorable results, both subjective and objective, have been reported. We are trying this method, but more time must elapse before a decision is possible as to its effectiveness. One must continue to try new measures and yet not do bizarre or foolish things. Many substances have been tried for rectal instillations and to no avail; maybe this one will prove otherwise.

A brief consideration of the surgical aspects of ulcerative colitis is indicated. Complications, such as secondary polyposis, colonic stricture, perforation, extensive perirectal infection and carcinoma, demand surgical intervention. Carcinoma is likely to develop in people who have had the disease for 15 years or more, and this is one of the reasons why patients with ulcerative colitis must have annual proctoscopic and colonic examinations.

It is possible that 10 or 12 per cent of patients who have ulcerative colitis may require ileostomy and colectomy. I shall not discuss the merits of whether or not one may conserve the terminal portion of the colon with the hope of doing subtotal colectomy and then an ileorectosigmoidal anastomosis, although I doubt that this can be accomplished successfully in any but the rarest case. Surgical procedures should not be postponed indefinitely; on the other hand, they should not be entered into hurriedly. A good many people with ulcerative colitis can be carried along nicely and live efficient lives. In an appreciable number of patients, the disease actually appears to subside entirely. I hesitate to use the word "cured", however, for practical purposes, many pa-

tients who have ulcerative colitis may become well.

Diverticula of the Colon

Diverticula of the gastrointestinal tract are common. True diverticula are congenital and involve all coats of the intestinal tube. These are much less common than are the acquired lesions. They are found with increasing frequency among patients who are past 40 years of age and occur predominantly in the lower left portion of the colon. At least 10 per cent of people more than 40 years of age and probably 25 to 30 per cent of people more than 50 years old have diverticula of the colon.¹ The sacs, or pouches, are really herniations of the intestinal mucosa and submucosa through weakened portions of the intestinal wall, usually at the site of the entrance of blood vessels. They are commoner in men than in women in a ratio of 1.6:1 and also are more common in obese people.

A series of 47,000 consecutive barium enemas at the clinic showed 4,000 people of all ages to have diverticula; 600 had evidence of diverticulitis, of whom 144 required operation. In one sense this would suggest that 144 of 4,000 people having diverticula (3.6 per cent) will require operation. This figure, while still high, is probably a fair indication of the relative infrequency of patients requiring operation for diverticula of the colon. The other figure of 600 people who had diverticulitis of the colon, and of whom 144 required operation, is not a true reflection of the over-all incidence of diverticulitis. Certainly, one-fourth of the patients having diverticulitis do not require operation. Actually, only about 10 per cent of a large group of patients having diverticulitis underwent surgical procedures.

Diverticulosis itself produces no symptoms. However, if inflammation ensues, then symptoms do occur; these include pain, fever and signs of obstruction in two-thirds of cases and signs of inflammation in one-third. Bleeding from the intestine rarely should be considered as a symptom of diverticulitis; while it may and does occur, it is most uncommon. Fistulas, either through

the abdominal wall or into adjacent viscera, developed in 42 per cent of the surgical group. Urinary voiding of gas is *prima facie* proof of a fistula into the bladder.

The medical management of diverticulosis, although minimal, is wise from a prophylactic standpoint. These patients should avoid eating hard particles, sometimes called "cinders," such as nuts, popcorn and big seeds, as in grapes and large berries. Also, it is wise for these patients to take one or two drams of mineral oil at night two or three times a week.

The treatment for diverticulitis includes rest in bed, the application of heat to the abdomen, gentle rectal irrigations of warm saline solution, a liquid diet (or perhaps only fluids given intravenously for a day or so) and antibiotics. As the attack subsides, a low-residue diet is provided first, followed by resumption of a normal diet. Mineral oil is given orally at bedtime. The use of antibiotics is discontinued as soon as possible. When fever and tenderness have subsided, the patient may be allowed out of bed. The tendency is to let the patient up too soon. For aftercare, the same simple suggestions should be followed as for patients having diverticulosis, namely no "cinders" in the diet and the use of mineral oil at night. Many patients, amazingly enough, do not suffer from further acute attacks.

The more unfortunate patient whose attack is complicated by perforation or increasing obstruction must undergo operation at what appears to be the most favorable time. If a patient suffers from recurring bouts of infection with periods of disability, operation is advisable. One never should hesitate to urge operation if roentgenologic examination shows evidence that the region involved has short sharp borders. More often than not, such a picture is indicative of carcinoma and not diverticulitis. In general, if operation is advised, the curative procedure is resection of the affected region. Drainage of an abscess or establishment of a temporary colonic stoma without resection of the involved portion may tide the patient over an emergency, but these measures are rarely curative.

The over-all picture in this problem is good. Fully two-thirds of patients with diverticulitis have little or no further trouble. About one-fourth will have some trouble, but not severe, leaving about 10 per cent who will require surgical measures. This, however, does not apply to patients having diverticulosis. There is no longer the reluctance to advise operation now that splendid measures to control infection are available. While a few patients may need a two-stage operation, many patients can be taken care of with a one-stage procedure. This is a great change from preantibiotic days, when a surgical procedure usually was measured in stages over weeks and months and was accompanied by an appreciably high mortality rate.

Malignant Tumors of the Colon

At least 95 per cent of malignant tumors of the colon are adenocarcinomas. We must continue to stress that carcinomas usually arise at the site where polyps occur. An adenomatous polyp of the colon is, for practical purposes, the seed of carcinoma. This raises the question of whether routine proctoscopic studies and barium enemas should be done on all patients in the course of examination. I am sure there is some merit in this. However, the problem is similar to that of whether to do routine gastric roentgenologic studies for carcinoma. The yield is so small that one wonders if it is warranted. The reported incidence of polyps varies from two per cent to as high as 15 per cent. A study⁵ carried out at the clinic on 1,919 patients who did not have any intestinal or rectal symptoms disclosed that 8.1 per cent had intestinal polyps. The majority were in people beyond the age of 40. One may mistake a lipoma or a pancreatic rest or some other lesion for a polyp; despite this possibility, it is safer to remove these polyps than to leave them.

The question of familial polyposis is a separate problem. In such cases, one must remove the colon with the hope that an ileo-rectosigmoidostomy can be accomplished; the polyps in the terminal segment of the intestine are destroyed later by fulguration. This is possible in most instances. If not

subjected to surgical intervention, these patients will die of carcinoma of the colon, barring other diseases or accidents.

Acute Infections

Insofar as acute infections of the colon are concerned, one thinks first of the *Shigella* and *Salmonella* groups of bacteria. Both of these groups can produce acute and violent reactions. One of the common causes of food poisoning is an infection with a member of the *Salmonella* group. When this is recognized, the specific medication appears to be chloramphenicol. The tetracycline group is extremely effective in eradicating *Shigella* organisms. Sulfadiazine may be used if the antibiotic is not at hand. It apparently does not eradicate the organism as effectively, but it does control the toxicity and the symptoms.

Another frequent cause of food poisoning is staphylococcal infection, in which the poisoning is due largely to the ingestion of staphylococcal toxin that already has been formed in the infected food. Unless there is a huge overdose or some complicating factor, the situation usually remedies itself when the toxin has expended its force. Another form of staphylococcal infection is the presence and overgrowth of staphylococci in the patient's intestinal tract, which produces severe staphylococcal enteritis. It may occur with or without relationship to surgical procedures and also with or without relationship to preceding use of antibiotics, although its occurrence is much more common since the use of antibiotics in either medical or surgical patients. The staphylococci proliferate rapidly and continue generation of the toxin. An associated difficult and dreadful problem is that of trying to protect patients from carriers of these organisms. Many studies have indicated that a third or more of attendants in hospitals carry active staphylococci in their nose and throat. The disease is less common in those patients who are able to maintain a fair intake of food, particularly proteins. The main thing is to be on the alert for such a situation, with the immediate intravenous administration of fluids and electrolytes, associated with use of antibiotics that have

not already been given to the patient, such as neomycin, erythromycin or novobiocin.

The incidence of amebic dysentery is a striking illustration of the level of sanitation and sewage disposal. If human excreta can enter the mouth of a person, diseases such as this will continue. My associates and I are seeing fewer patients with amebiasis than in the past. Most of the cases represent quiescent disease in people from tropical lands or in military personnel from overseas. "Frank" cases of amebic ulcerative colitis and hepatic damage have become extremely uncommon in the past 10 years.

In no wise do I deprecate examination of the stool for *Entamoeba histolytica* and other intestinal parasites. When *E. histolytica* is found and subjective symptoms are absent, the simplest and least toxic treatment is the use of carbarsone. This arsenical drug is prescribed in 0.25-gm. doses after meals for five days, with a rest interval of 10 days, followed by another five-day course. The risk of arsenical reaction is extremely small, and yet this amount of the drug is usually sufficient to eradicate the parasites. For cases of active amebiasis, the older method of combining administration of emetine with carbarsone is still excellent. The risk of reactions from emetine is minimal when it is

given in one-grain doses hypodermically twice daily for three days, with a second course after a week's interval.

Another method, used preferably if the presence of hepatitis is suspected, is the combination of chloroquine and a tetracycline drug. One prescribes chloroquine in a dose of 0.5 gm. twice daily for seven days. With this, one administers a tetracycline product in a dose of 500 mg. every six hours for two days and then every eight hours for three more days. A rest interval of seven days is advised, and then the same regimen is repeated.

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ABSURDITY, n. A statement or belief manifestly inconsistent with one's own opinion.

From the Devil's Dictionary by Ambrose Bierce

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DISSECTING HEMATOMA *of the* AORTA

LOUIS A. SOLOFF, M.D.

Dissecting hematoma, better known by the term dissecting aneurysm introduced by Laennec over 100 years ago, has stimulated comparatively little interest except as a subject for a clinical pathologic exercise and even then primarily to test the imagination and skill of the clinician who already knows that the patient has died. This attitude is in marked contrast to that with respect to myocardial infarction which historically is a much more recent disease. For dissecting hematoma was first recognized as a pathologic entity by Morgagni in 1760; its mechanism first studied by Mauvoir in 1802; and it was first clinically diagnosed by Latham in 1855 long before coronary thrombosis with resultant myocardial infarction was so recognized. This lack of interest in dissecting hematoma may be perhaps due to its apparent rarity, its lack of definitive diagnostic criteria and also perhaps even if the clinical diagnosis was made, to the fact that the physician simply attempted to relieve a pain and to wait for the patient to die.

Actually, the incidence of dissecting hematoma is unknown.^{1,2} It is usually stated that it occurs once in about 400 autopsies in a general hospital. Because death frequently follows, quickly upon the onset of pain, most victims may not reach a hospital. For instance, the incident in the coroner's office has been reported as slightly over one per cent of all sudden death. In our own experience, dissecting hematoma now surpasses cardiovascular syphilis as a cause of death. There is good reason to believe that the incidence of dissecting hematoma is rising and will continue to rise. The hypertensive person who is particularly prone to develop dissecting hematoma is living longer because of prevention or control of many complications, particularly those of infectious origin.

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Anti-hypertensive drugs may also prolong the lives of hypertensive persons. Paradoxically, the intermittent or partly ineffective use of these very drugs may precipitate dissecting hematoma. Thus, nine of 44 hypertensive persons so treated develop dissecting hematoma. This increasing incidence is one important reason for a renewed interest in this disease. Equally important in the renewed interest is the development of a surgical approach³ which permits the acute lesion to terminate with survival of the patient just as nature may but unfortunately too infrequently. Thus, about one-third of all persons with dissecting hematoma die within 48 hours and one-half within 10 days. This high mortality means that if surgical treatment is to be effective, a definite diagnosis must be established with confidence immediately after the onset of symptoms. It is equally important, of course, not to over diagnose this lesion because of an unnecessary operation for dissecting hema-

toma in a critically ill patient has a high chance of proving fatal.

Unfortunately, the clinical syndromes of dissecting hematomas are extremely variable and frequently confusing. Nevertheless, there are certain suggestive syndromes which make the diagnosis very likely and on rare occasions are almost diagnostic. Dissecting hematoma is most commonly manifested by pain which starts abruptly with its maximum intensity and remains unremitting. The pain may be constant in location or may progress downward or upward following the course of the aorta or upward following those of the major branches of the arch of the aorta. Pain most commonly starts in the precordial interscapular or epigastric region or in the loin.

Such pain, not quickly explainable on any other basis, should lead to a suspicion of dissecting hematoma particularly if the patient 1) has Marfan's syndrome or has a relative with such 2) has coarctation of the aorta 3) has severe funnel shape chest with kyphoscoliosis 4) is pregnant particularly in the third trimester. In pregnancy, pain is typically in the precordium. Perhaps the aorta under the influences of hormonal changes during pregnancy is more susceptible to direct rupture 5) has a pre-existing high blood pressure with the abrupt appearance of an aortic diastolic murmur which usually occurs in about 25 per cent of patients with dissecting hematoma 6) persistent hypertension with cold clammy skin 7) a person whose hypertension has been previously effectively treated by anti-hypertensive drugs, and, last, has a bacteremia.

Even in the absence of these situations, a symptom complex such as that previously described should raise the suggestion of the possibility of dissecting hematoma. The usual difficulties in the diagnosis arises because of the resemblance of the pain to that of myocardial infarction. Frequently, pain of myocardial infarction is different because 1) there may be a history of pre-existing angina pectoris 2) the pain usually reaches its maximum slowly and 3) the pain

is remitting 4) the pain tends to radiate transversely, particularly to the shoulders and to one or both arms 5) physical examination in these severe cases which may mimic myocardial infarction discloses a rapid rate, accentuated second pulmonic sound and a gallop rhythm with or without arrhythmias. In these situations, an electrocardiogram is frequently positive almost immediately after the onset of pain. Unfortunately, this is not always so nor does the transaminase help one immediately. Roentgenologic examination of the chest is also of little help at the onset except on rare occasions in which a previous film is available from which it differs.

Even in the subacute or chronic stage of dissecting hematoma, conventional roentgenologic examination of the chest may not be diagnostic. The double contour aortic knob¹ may be mimicked by an atherosclerotic partly uncoiled aorta which is so common in hypertension and the age group most susceptible to dissection of the aorta. Unexplained left pleural effusion should heighten one's suspicion of the possibility of a rupture of the aorta with or without healing of the dissection.

Pain almost identical with that of dissection may be due to pericarditis. But this lesion almost invariably produces in its acute stage a friction rub which can be heard if the patient is examined frequently the first day of his illness and particularly if examined supine, sitting and leaning.

The diagnosis is usually overlooked when dissecting hematoma produces pain in an atypical region and when pain is absent because of unconsciousness or syncope. Such complications occur when the dissection of the branches of the aorta which lead to the brain just as dissection of branches of the abdominal aorta may produce pain in the loin resembling renal disease or epigastric pain resembling peptic ulcer.

It is important to know that pain which radiates from the torso to the head, neck, back or extremities is due to dissection of

branches of the aorta. This dissection produces abnormalities and inequalities of the pulses and also may produce transient neurologic symptoms and signs. Such findings are rarely present with the other types of pain producing syndromes with which dissecting hematoma may be confused.

A small percentage of hematomas may heal spontaneously. Patients with healed dissecting hematomas may have no symptoms or may have heart failure with or without pleural effusion. In these cases, conventional roentgenology may be helpful but, as previously stated, is rarely diagnostic. The presence of aortic regurgitation not explainable on either a syphilitic, atherosclerotic or rheumatic basis with an unexplained left pleural effusion or cardiac failure adds to the likelihood of the diagnosis.

Careful attention to all these features will lead to a higher incidence of correct diagnoses of dissecting hematoma than is commonly reported in the literature. Nevertheless, it must be admitted that no combination of clinical features is necessarily pathognomonic and that atypical features which shatter confidence are not rare.

Dissection of the aorta is characterized by extravasation of blood in the wall of the aorta.² Regardless of whether the blood has reached extravascular aortic tissue from a tear in the intima or a rupture of the vasa vasorum, it is obvious that contrast substance which enters the aorta will also reach this tissue.⁵ Venous angiocardiology⁶ is one method of delivering contrast substance into the aorta. The only problem is whether it is safe to perform such a study in the acute stage of dissection. Our group had previously carried out several hundred such studies in a variety of cardiac illnesses including advanced cardiac failure. We have never encountered a significant untoward cardiac or aortic reaction. For these reasons, we have no hesitation in performing

venous angiocardiology in persons suspected of suffering from acute dissecting hematoma. The studies, as anticipated, proved harmless and diagnostic.

The diagnosis is established by visualizing densely opacified blood within the aortic lumen and less opacified blood within the aortic wall. These two regions are separated by a zone of radio lucency which represents the thickness of the wall lying between the dissecting hematoma and the aortic lumen. The extent, origin and termination and the dissection is visualized which is of great help to the surgeon planning the operation. Although simultaneous biplane venous angiocardiology is desirable, the lateral projection is usually adequate in delineating the disease.

Summary

Dissecting hematomas of the aorta is increasing in frequency. The clinical syndromes are outlined. Nevertheless, a definitive clinical picture is not always present. A diagnosis established promptly and with confidence is necessary for surgical repair to be effective. This can be accomplished safely by venous angiocardiology.

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Evaluation of 100 Partial Gastric Resections for Benign Peptic Ulceration of the Stomach and Duodenum

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The following report is a review of a consecutive series of 100 cases in which a uniform partial gastric resection was performed. It is proposed to show that an ante colic Billroth II type of resection is a satisfactory procedure for the treatment of benign ulcers, that this resection can be performed in the presence of acute bleeding with good results, and that on occasion such a resection is practical if perforation has occurred.

The information contained herein was obtained by reviewing the history, physical examination, laboratory findings and hospital course as recorded during their stay at St. John's Hospital, Tulsa, Oklahoma. This series represents partial gastric resections for benign peptic ulceration performed over a ten year period by one surgical team.

The following information was obtained for evaluation: sex, age, indications for surgery, type of operation performed, type of anesthetic used, additional operative procedures at time of resection, post-operative stay and complications. A post-operative follow-up consisting of a personal interview with each patient is currently being conducted.

The series represents 80 males and 20 females. Their ages ranged from 28 to 81 years.

Indications for operation were:

Poor response to medical management	46
Obstruction	25
Active bleeding	23
Suspicion of malignancy	4
Acute perforation	2

It is interesting to note that 12 of the pa-

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This paper was presented by Doctor Compton at the Oklahoma Association of House Staff Physicians on May 23, 1958.

tients in this series had had perforation at some time in the past.

The type of operation performed was a Billroth II partial gastric resection, with approximately two-thirds to three-fourths of the stomach being removed. An ante colic anastomosis to the jejunum consisting of the entire gastric stump was performed. No attempt was made to have a short afferent loop, and in general the anastomosis was made 12 to 15 inches distal to the ligament

of Tritz. The area of ulceration was removed entirely when feasible, however, in 12 cases exclusion of the ulcer was necessary. The series represents 11 gastric ulcers, and the remainder duodenal ulcers.

Additional procedures were performed in 22 cases, consisting of: appendectomy 12, cholecystectomy six, cholecystoduodenostomy one, operative cholangiogram one, ventral hernia repair one, and cardiac massage one.

A continuous spinal anesthetic was used in 81 cases. A single injection spinal was employed in nine cases, and a general anesthetic was used in 10 cases.

Careful attention was given to post-operative care. Gastric decompression was maintained on the average of four days during which time parenteral fluids were given. Following this, selected liquids and foods in small amounts were given for three to four days. Thereafter the patient was placed on an ambulatory ulcer diet without supplemental anti-spasmodics or anti-acids. The average number of post-operative days that the patient was hospitalized was 14.

There were complications in 20 cases and there were two deaths. The complications consisted of:

Major wound infections	6
Post-operative hemorrhage	3
Minor wound infections	3
Duodenal leak	2
Marginal ulcer	2
Gastric retention	2
Pulmonary emboli	2
Dehiscence	1
Phlebothrombosis	1
Efferent loop obstruction	1
Adhesions	1

There were two deaths. Both had a similar history of protracted pain with long

standing partial obstruction, and on admission were completely obstructed. They were in poor electrolyte balance which could only be partially corrected prior to operation. Both expired on the fifth post-operative day in complete renal failure.

Comments

This series shows that a subtotal gastrectomy with the Polya ante colic anastomosis was performed on 23 patients during major active bleeding, 18 of which had had previous severe bleeding.

This group of 23 cases of active bleeding represents two gastric ulcerations and 21 duodenal ulcerations. There were no deaths in this group. There were post-operative complications in three patients.

A subtotal gastric resection was performed on two patients with perforation. In each case the perforated site was of such magnitude as to make primary closure impractical.

Summary

Among the 100 patients with benign peptic ulcer who were subjected to partial gastric resection there were complications in 20 cases. There were two deaths following resection.

A follow-up survey consisting of personal interview and questionnaire is currently being conducted to evaluate patient's satisfaction.

This report is presented as evidence that the Billroth II partial gastric resection is a very satisfactory operation for benign peptic ulceration of the stomach and duodenum. The operation mortality rate is low and the complication rate is low. The excellent results in cases with acute bleeding is quite striking. It is felt that this operation meets the demands of the general surgeon for this condition.

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The Present Status of the Use of ORAL MEDICATIONS in DIABETES MELLITUS

Mechanism of Action of Orinase

ALLEN R. HENNES, M.D., and KELLY M. WEST, M.D.

Though the use of tolbutamide (Orinase) in clinical practice is relatively well defined, its mechanism of action, despite much work, sound and fury, is still unknown. This is perhaps not surprising when we consider that after more than 35 years of research, the mechanism of action of insulin is still considerably less than crystal clear. Figure 1 shows the structural formula of Tolbutamide. Carbutamide, a drug with a substantial hypoglycemic potency, but with more severe and frequent toxic effects, differs only in the presence of an NH_2 group instead of the CH_3 group on the benzene ring. It is interesting that the major tolbutamide excretion product,¹ the carboxyl derivative which is formed when the CH_3 group on the benzene ring is oxidized to

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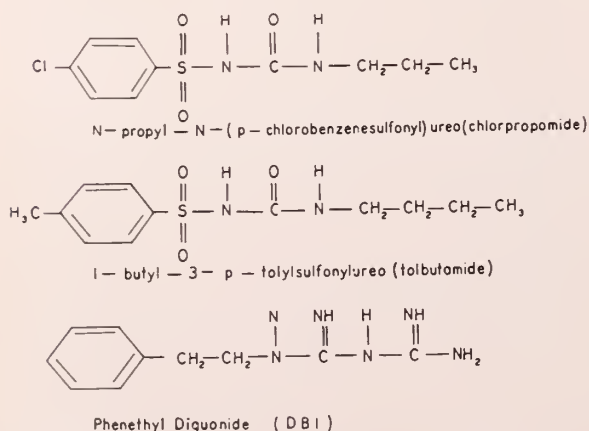


Fig. 1. Structural formulae of several oral hypoglycemic agents

COOH and no other structure is changed, has no hypoglycemic effect.

Studies to determine the mechanism of action of the sulfonylureas can be grouped under four general categories:

1. Investigations designed to determine if the sulfonylureas produce their hypoglycemic effect by antagonizing hormones which produce hyperglycemia.

2. Studies to determine the effect of sulfonylureas on hepatic glucose output.

3. Studies of the effect of sulfonylureas on increasing secretion or decreasing degradation of insulin.

4. Determination of the metabolic changes associated with the hypoglycemia following administration of the sulfonylureas.

A number of studies have been designed to test the effect of sulfonylureas on antagonizing the hyperglycemic effect of certain hormones. Only a few will be mentioned. Clinical studies have shown that tolbutamide does not prevent a normal hyperglycemic response to epinephrine or glucagon, nor does it inhibit the hyperglycemic effect of large doses of adrenal 17-hydroxycorticoids.² Despite this clinical evidence that administration of tolbutamide does not impair hyperglycemic response to glucagon, epinephrine, and 17-hydroxycorticoids, nevertheless recovery from hypoglycemia, after acute administration of tolbutamide is slower than after acute administration of insulin when comparable degrees of hypoglycemia are produced. Vaughan has shown in experiments with rat and rabbit liver slices, that relatively high concentrations of tolbutamide (5×10^{-4} or 5×10^{-3} M) will decrease resynthesis of active phosphorylase.³ This enzyme is required for breakdown of glycogen to glucose-1-phosphate, a required step in release of glucose from glycogen. Phosphorylase exists in an inactive and active form in the liver. Glucagon and epinephrine are thought to act in the liver by increasing the amount of the active form of phosphorylase. As pointed out above, clinical studies suggest that tolbutamide does not act by inhibiting the response to epinephrine or glucagon. Yet in vitro studies show that tolbutamide can inhibit the effect of both glucagon and epinephrine on glucose release from liver slices. Perhaps this in vitro effect has no physiological significance because of the relatively high levels of tolbutamide required to produce it, which are 5-10 times higher than

blood levels obtained during tolbutamide induced hypoglycemia. However, as Vaughan suggests, concentration of tolbutamide by the liver, could occur because of preferential binding. It is also possible that the doses of epinephrine and glucagon used in the clinical studies were much higher than the amounts secreted normally in response to hypoglycemia and were sufficient to mask any antagonistic effect of the sulfonylureas.

Since the level of fasting blood glucose is the result of a balance between input of glucose from the liver and peripheral utilization of glucose, many studies have been designed to test the effect of tolbutamide on glucose output from the liver. Miller and Dulin⁴ found that tolbutamide treated animals showed a marked increase in liver glycogen as compared to insulin treated animals. This effect was noted primarily in the fasted animal. Long and Sherry⁵ were able to confirm that tolbutamide treated rats showed an increase in liver glycogen as compared to fasted control rats. However, liver glycogen was much less than in fed animals.

The effect of tolbutamide on "Hepatic" glucose output has been studied by several workers by catheterizing the hepatic vein. A decrease in hepatic glucose output under the influence of tolbutamide has been demonstrated uniformly. Whether this is due to increased utilization of glucose by the liver, as suggested by Recant and Fisher,⁶ or whether it is due to inhibition of enzymes concerned in glycogen breakdown as suggested by Vaughan,³ is at present unknown.

Though these studies have shown a decrease in hepatic vein output of glucose under the influence of tolbutamide, other studies^{7, 8} have shown that the sulfonylureas can still produce a hypoglycemic effect in the hepatectomized animal. Therefore, suppression of hepatic output of glucose is not a necessary factor in production of tolbutamide induced hypoglycemia. This effect could, however, play an important part in slowing recovery from hypoglycemia.

The obviously important possibilities that the sulfonylureas might act by increasing secretion or decreasing destruction of insulin have been studied rather extensively. Tolbutamide is not effective in pancreatecto-

TABLE I
A comparison of some physiological effects of insulin and tolbutamide administration.

PHYSIOLOGIC EFFECT	INSULIN	TOLBUTAMIDE
Penetration of glucose into muscle and adipose tissue in vitro.	Marked increase	No effect
Liver Glycogen	No effect	Increase
Muscle Glycogen	Increase	No effect
Liver lipid synthesis	No effect on synthesis from C ¹⁴ acetate	Increases synthesis from C ¹⁴ acetate
Depot lipid synthesis	Increases synthesis from C ¹⁴ acetate	No effect on synthesis from C ¹⁴ acetate
Output of glucose from liver	?	Decrease
Effect on blood pyruvate	Increase	Decrease
Effect on venous inorganic phosphorus	Decrease	No consistent effect
Effect on specific activity of C ¹⁴ Labeled glucose	Decrease	No effect

mized humans² or animals.⁹ Neither is it effective in the juvenile diabetic, in whom plasma insulin activity cannot be demonstrated.¹⁰ It was therefore apparent that tolbutamide was incapable of inducing hypoglycemia in the absence of insulin. Mirsky postulated that the sulfonylureas acted by inhibiting insulinase, a non-specific proteolytic enzyme system which destroys insulin. In vitro studies by Mirsky¹¹ have shown that high concentrations of tolbutamide can inhibit insulinase, but these are much higher concentrations than are normally obtainable in blood in vivo. Again, however, selective binding of tolbutamide by the liver, an organ with high concentrations of insulinase, could produce very high levels of tolbutamide in that organ. On the other hand, Cox et al¹² were unable to show an effect of tolbutamide on insulinase activity. Furthermore, Berson¹³ and Weaver et al¹⁴ have shown that tolbutamide does not inhibit the degradation of ¹³¹I labeled insulin in vivo. It seems, therefore, exceedingly unlikely that insulinase inhibition is an important factor in production of tolbutamide induced hypoglycemia under clinical conditions.

A large number of experiments have been done to test the hypothesis that tolbutamide acts by causing increased secretion of insulin. Only a few will be mentioned. One of the first was that of Colwell and Colwell,¹⁵ who injected tolbutamide directly into the pancreatic artery and believed that they could produce a greater hypoglycemic effect in this fashion than by giving tolbutamide by other routes. Their data, however, do not according to their last published report¹⁶ show clear cut differences between the intensity of the hypoglycemic effect produced by the injection into the pancreatic artery as opposed to those produced by the injections into the femoral vein.

Renold et al¹⁷ and more recently Weaver et al¹⁴ have been unable to demonstrate an increase in plasma insulin, as measured by the rat diaphragm technique during the periods of hypoglycemia induced by tolbutamide administration.

Other workers have compared metabolic changes accompanying tolbutamide induced hypoglycemia with those associated with insulin induced hypoglycemia. If tolbutamide acts by increasing secretion or decreasing

destruction of insulin, then at comparable levels of hypoglycemia physiological changes accompanying tolbutamide and insulin induced hypoglycemia should be the same. Many differences have been noted. (Table 1)

Purnell et al¹⁸ were unable to show a decrease in venous phosphorus level during tolbutamide induced hypoglycemia, whereas a decrease in venous phosphorus was associated constantly with insulin induced hypoglycemia. They were also unable to show an increase in A-V glucose difference while an increase in A-V glucose difference, presumably indicating increased peripheral utilization of glucose followed insulin induced hypoglycemia. Hennes et al¹⁹ found that hypoglycemia following administration of tolbutamide to normal subjects, was associated with a decrease in blood pyruvate, while comparable degrees of hypoglycemia produced by insulin administration were associated with an increase in levels of blood pyruvate. These findings have been confirmed by Recant and Fisher, who found that after administration of tolbutamide peripheral levels of venous pyruvate decreased in association with an increase in hepatic vein output of pyruvate.⁶ Miller and Dulin¹ have found that hypoglycemia following tolbutamide administration to rats, is associated with an increase in liver glycogen, with little change in muscle glycogen. On the other hand, they found that insulin induced hypoglycemia is associated with an increase in muscle glycogen and no increase in liver glycogen. Ashmore et al²⁰ have found that insulin induced hypoglycemia is associated with increased incorporation of C¹⁴ glucose into adipose tissue fatty acids, while hypoglycemia following administration of tolbutamide was associated with increased incorporation of C¹⁴ into liver fatty acids. Further differences in the character of the responses to tolbutamide and insulin were demonstrated by Houssay.²¹ He has shown that adrenalectomized animals are much more sensitive to the hypoglycemic effect of tolbutamide than are hypophysectomized animals. Hypophysectomized animals, on the other hand, are much more sensitive to the hypoglycemic effect of insulin, than are adrenalectomized animals.

Thus, though there is agreement that tolbutamide produces hypoglycemia and insulin is required for its action there is much evidence to suggest that hypoglycemia following administration of tolbutamide differs in some respects from the hypoglycemia induced by insulin administration. It is probable that the mechanism of action of the sulfonylureas is complex. There is good evidence as previously noted that tolbutamide decreases hepatic output of glucose. Studies with C¹⁴ glucose²⁰ have shown that tolbutamide induced hypoglycemia is not associated with a more rapid decline of specific activity of blood glucose (ratio of radioactive to non-radioactive glucose) than is administration of saline. On the other hand insulin induced hyperglycemia is associated with a sharp decline in specific activity of blood glucose. If there were no increase in peripheral utilization of glucose, after administration of tolbutamide, the decline in specific activity of blood glucose would be less rapid because of decreased dilution of blood glucose with unlabeled glucose from the liver. The finding that specific activity of glucose did not change in association with hypoglycemia, which was presumably associated with a decrease in hepatic glucose output, suggests that the increase in peripheral utilization of glucose may have compensated for the decrease in output of glucose from the liver. The data of Recant and Fisher, showing an increase in hepatic pyruvate production in association with a decrease in peripheral blood pyruvate levels after administration of tolbutamide also suggest that both peripheral and hepatic mechanisms may be involved. It may be that changes in hepatic metabolism are secondary to alterations in peripheral metabolism of glucose produced by tolbutamide.

Many questions need to be answered before the mechanism or mechanisms of action of tolbutamide are known. Why must insulin be present before sulfonylureas can have a hypoglycemic effect? Insulin is thought to act primarily by increasing permeability of muscle and adipose tissue to glucose. It tolbutamide has no effect on cellular permeability, but influences pathways open to glucose only after glucose gets into the cell, it becomes apparent that tol-

butamide could have little or no effect in the absence of insulin because entry of glucose into the cell could not be increased. Permeability of the cell to glucose may be the "rate limiting" step in Orinase induced hypoglycemia and this step is markedly accelerated by insulin.

When glucose gets into the cell, several pathways are open to it. Much glucose is normally converted to fat and stored. Ashmore et al²³ have begun to study the effect of tolbutamide on conversion of glucose to fat. More work of this type is required.

Further work is also needed to clarify the effect of tolbutamide on levels of pyruvate. As previously noted, tolbutamide induced hypoglycemia is usually associated with a decrease in pyruvate, and insulin induced hypoglycemia with an increase. This could be due to a decrease in production of pyruvate or to an increase in utilization of pyruvate under the influence of tolbutamide. If less pyruvate is produced, perhaps orinase increases utilization of glucose by influencing the so called hexosemonophosphate or direct oxidative pathway. If more pyruvate is utilized, perhaps there is increased oxidation of this important three carbon fragment as it is produced in muscle. These possibilities have not as yet been investigated.

The possibility that the mechanism of action of orinase may be to some degree different in the different species should be mentioned. Similarly, it is possible that some of the apparent disparities in the results of the previously mentioned experiments are due to the fact that these experiments were carried out on several different species.

Summary of Mechanism of Action of Orinase

The mechanism of action of tolbutamide is unknown. Administration of this compound delays recovery from hypoglycemia and decreases output of glucose from the liver. However, these effects seem only supplementary to a primary action since hypoglycemia can be produced by administration of tolbutamide following hepatectomy. Because hypoglycemia following administration of tolbutamide differs physiologically in

many respects from the hypoglycemia following insulin administration, it seems quite likely that the mechanism of action of insulin and tolbutamide are different. Further study of these intriguing compounds should add greatly to our knowledge of carbohydrate metabolism.

Clinical Use of Oral Hypoglycemic Agents

At present tolbutamide (Orinase) is the only compound commercially available which is effective in the treatment of diabetes when administered by mouth.

Selection of patients for treatment with tolbutamide. There is a large percentage of the diabetic population in which tolbutamide is not necessary or in which this drug is ineffective. Approximately one third to one half of all diabetic patients can be controlled by conventional dietary means alone. These patients do not need tolbutamide. Treatment with tolbutamide has been uniformly unsuccessful in thin "brittle" diabetics in whom the onset of diabetes occurred in childhood or early adult life. The use of tolbutamide alone may be dangerous and is contraindicated in diabetics who have a history of acidosis or coma. In diabetics with severe infections the use of tolbutamide alone is usually an ineffective substitute for insulin and its use in such instances should be avoided. It has been suggested that the administration of tolbutamide in addition to insulin to some young patients may result in greater stability of the diabetes. However, sufficient evidence is not yet available to establish the efficacy of tolbutamide in this regard.

The group of diabetics particularly suited for treatment with tolbutamide includes patients in the following categories.

1. Patients over forty years of age.
2. Obese patients.
3. Patients with "stable" diabetes.
4. Patients whose insulin requirements are less than 40 units per day. (However middle aged obese diabetics who are receiving over 40 units of insulin daily occasionally will respond to tolbutamide.)
5. Patients in the categories mentioned

above in whom standard dietary management has proved ineffective.

Several different tests have been devised in an attempt to predict which patients will respond favorably to tolbutamide. On the basis of extensive experience at the Joslin Clinic, Mehnert and his associates²² suggested that one of the best guides in predicting whether treatment with tolbutamide would be successful was the fasting blood sugar four hours after a single dose of 3 grams of tolbutamide by mouth. Regardless of the initial level, if the blood sugar reached normal (below 110 mg. percent, when measured by the Folin-Wu Method) four hours after the drug treatment was likely to be successful. If, on the other hand, the blood glucose did not reach normal after this test dose a favorable response to treatment was unlikely. This test was, of course, not infallible but false positive and false negative tests were uncommon. Williams²³ and Duncan²⁴ have also devised similar tests for estimating the responsiveness of a patient to tolbutamide.

There is some difference of opinion among authorities as to the percentage of the diabetic population in which treatment with tolbutamide is appropriate. Those who permit moderate hyperglycemia and moderate glycosuria usually administer tolbutamide to a greater percentage of their patients since there are patients in whom tolbutamide produces a reduction in glucosuria but does not abolish it. On the other hand, those who believe that it is important to achieve normal or near normal blood glucose values whenever possible, discontinue tolbutamide and administer insulin when the administration of tolbutamide does not reduce the blood glucose to levels near normal. There is another theoretical objection to treatment with tolbutamide. The principal cause of morbidity and mortality in older diabetics is atherosclerosis. Although it has not been proven that the administration of insulin corrects the aberrations of lipid metabolism which enhance the development of atherosclerosis the effects of insulin on lipid metabolism are direct and profound, while the effects of tolbutamide on lipid metabolism are almost completely unknown. It is therefore possible that insulin exerts a fav-

orable influence in inhibiting development of atherosclerosis which is not exerted by tolbutamide. It should be emphasized, however, that an advantage of insulin over tolbutamide in this respect has not been proved.

Many patients and some physicians have attempted to use tolbutamide as a substitute for conventional dietary treatment. It has not been possible, however, to control hypoglycemia with tolbutamide when either carbohydrate or caloric intake or both is excessive. Thus successful therapy with tolbutamide depends on the observance of standard dietary measures.

Technique of treatment with tolbutamide. Patients who do not respond satisfactorily to doses of 1 to 1.5 grams daily do not usually respond to larger doses. If the response to a daily dose of one gram is satisfactory as evidenced by control of hyperglycemia and glycosuria the results of treatment may be reviewed after 2-4 weeks and a maintenance dose of .5 to 1 gram selected. In some instances treatment has been started with doses as large as 3 grams daily for a few days before a smaller maintenance dose is administered. It is sometimes possible to decide earlier whether or not satisfactory response will occur when larger doses are administered initially. However, as pointed out above if one gram of tolbutamide daily does not produce a satisfactory response within a few days further treatment with larger doses is not likely to be successful. Patients who have been on diabetic diets for more than two weeks usually respond to a dose of one gram daily within one to six days if they are going to respond to treatment with this drug. Patients who are being changed from insulin therapy to tolbutamide should be under careful observation during the transition period since ketocidosis may occur when insulin is withdrawn.

It has been shown recently that the biologic half time of tolbutamide is about four hours.²⁵ This indicates that after the drug has been administered orally only a small percentage of the dose is present in the body in an active form 24 hours later. This suggests that the drug ought to be administered in individual doses. However in patients

who are responsive to the drug a single dose of 0.5 to 1 gram daily administered before breakfast is often effective. Recently the authors have most frequently used a dose of 0.5 gram twice daily.

Toxicity. With dosages of 1 gram daily toxic reactions to tolbutamide are uncommon and usually mild. The undesirable effects most frequently seen have been mild digestive disturbances and urticaria.²² Clinically significant hypoglycemia rarely occurs in diabetic patients.

Other new antidiabetic agents. Two new oral hypoglycemic agents are being investigated rather extensively, although neither is commercially available as of July, 1958. A biguanide derivative known as DBI (Figure 1) has been tested recently in diabetic patients.²⁶ It has been found to be effective in approximately the same types of patients in whom tolbutamide has been effective. However, there is some evidence suggesting that it is more likely to be effective than is tolbutamide in patients in whom the disease has started in early adult life.²⁶ Nausea and vomiting occur very frequently in patients who are treated with DBI. Therefore, it will be necessary to accumulate more experience before deciding whether this drug will have a place in the treatment of diabetes.

Chlorpropamide, a drug chemically related to tolbutamide (Figure 1) is at present under extensive clinical investigation. Studies in normal subjects have shown that this drug is more potent than tolbutamide²⁷ but it is not yet certain whether the increase in potency is due to a slower rate of excretion of the compound or the other factors. The toxicity of chlorpropamide in man has not been adequately evaluated as yet.

Summary of Clinical Use of Tolbutamide

Tolbutamide, when administered in addition to standard dietary therapy may be effective in controlling hyperglycemia in a selected group of diabetic patients. Such patients are usually over forty years of age. The dose most frequently employed by the authors is .5 gram twice daily. The factors which influence the selection of patients

for treatment with tolbutamide have been discussed, and the clinical use of this drug has been briefly described.

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Chlorpropamide as an Oral Hypoglycemic Agent

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This study was designed to evaluate the hypoglycemic effect of chlorpropamide, a sulfonylurea compound, in diabetes. The structural similarity to tolbutamide (Orinase) and to carbutamide can be seen in Figure 1. Chlorpropamide differs from tolbutamide only in that it has one less methylene group in the side chain and has a chlorine atom attached to the benzene ring instead of a methyl group.

Previous investigators in the Department of Research at the Pfizer Company found that the acute and chronic toxicity of chlorpropamide and tolbutamide were qualitatively and quantitatively similar in animals.¹ At comparable dosage levels chlorpropamide and tolbutamide have similar hypoglycemic effects in rats and dogs.

Studies done by West and McCampbell² to determine the hypoglycemic effectiveness of chlorpropamide in man revealed that chlorpropamide administration was followed by greater and more prolonged hypoglycemia than was administration of tolbutamide. The results of their experiments are shown in Figure 2. In their experiment 10 subjects had been kept in a fasting state after 7:00 p.m. except for eight ounces of milk at mid-

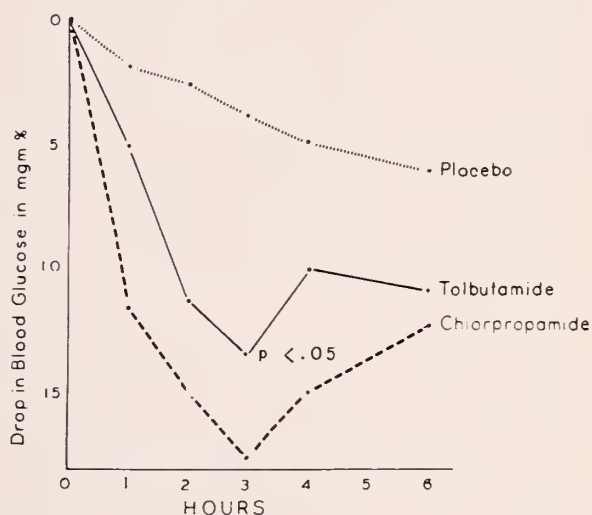
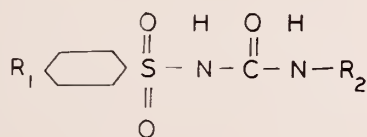


Figure 2. Blood glucose response to Tolbutamide, Chlorpropamide, and Placebo.

night. After a specimen of venous blood had been drawn at 7:00 a.m. the following morning, each subject received by mouth one gram of chlorpropamide, tolbutamide, or sodium bicarbonate. Venous blood glucose samples were then determined every hour for four hours and again at the end of the sixth hour after drugs had been given. The tests were repeated at weekly intervals until each subject had received all three drugs in a random fashion. Chlorpropamide produced greater hypoglycemic responses than tolbutamide. Three hours after administration the difference between the hypoglycemic responses was statistically significant ($p < .05$ paired control t-test).

A second experiment was carried out³ to determine the level of blood glucose 12 and 18 hours after administration of one gram of tolbutamide and of chlorpropamide during a period in which the subjects ingested standard feedings. Evaluation of the data



	R_1	R_2
Tolbutamide	CH_3	C_4
Carbutamide	NH_2	C_4
Chlorpropamide	CL	C_3

Figure 1. Structural difference of the sulfonylureas.

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indicated that a statistically significant hypoglycemic effect was produced by chlorpropamide at 12 and 18 hours, while tolbutamide failed to elicit a statistically significant response.

In the present study, the action of chlorpropamide was observed in a group of diabetic patients, some of whom have been receiving the drug for five months. All the patients were hospitalized initially and each had a general medical evaluation. Two types of patients were selected for study: 1. New diabetics who continued to have elevated fasting blood glucose values after treatment with a diet containing less than 200 grams of carbohydrate per day for from one to two weeks. 2. Diabetics requiring 15 to 30 units of insulin daily.

Initial baseline studies included fasting blood glucose (using the Nelson¹ method), thymol turbidity determinations, bromsulphthalein excretion tests, white blood counts, and hemoglobin determinations. Patients received a diet containing 1500 to 1800 calories with 150 grams of carbohydrate for a period of from five to 14 days. Daily fasting blood glucose levels were measured and urinary glucose and acetone were determined four times daily, at 7:00 a.m., 11:00 a.m., 4:00 p.m., and 9:00 p.m. After the fasting blood glucose levels had stabilized, chlorpropamide was begun. When the study was started, the effective blood level and potency of chlorpropamide was unknown and a single daily dose of one gram per day was arbitrarily chosen and administered one half hour before breakfast. Patients taking chlorpropamide were followed for periods averaging two weeks before they were discharged. They were seen at intervals of two weeks in an outpatient clinic on which occasions the baseline laboratory studies were repeated.

Figure 3 shows the fluctuation of the blood glucose in four diabetics to whom chlorpropamide was administered. The horizontal bar represents the period during which chlorpropamide was administered. In the first division of the figure, the variation of the fasting blood glucose by diet alone is shown.

The first patient was a 65 year old white male who had had symptoms of polydipsia, polyphagia, and polyuria for several months. His fasting blood glucose on admission was 278 mg. percent. After diet alone for two weeks the fasting blood glucose values ranged from 174 to 194 mg. percent and treatment with chlorpropamide was started. The gradual decline in the fasting blood glucose may be noted. At the time of discharge his fasting blood glucose was 82 mg. percent. After he was discharged from the hospital his fasting blood glucose values ranged from 74 to 94 mg. percent. One month after discharge his dosage was decreased to 500 mg. daily. Subsequent fasting blood glucose values have continued to fluctuate between 85 and 92 mg. percent.

The second patient was a 66 year old white male found to have a fasting blood glucose of 278 mg. percent. This declined only to 214 mg. percent by diet alone. On one gram daily of chlorpropamide there was a gradual decline of the level of the fasting blood glucose, and at the time of discharge, his fasting blood glucose was 95 mg. percent. Since he experienced symptoms of hypoglycemia as an outpatient, the dosage was decreased to 500 mg. daily. Since then his fasting blood glucose values ranged from 70 to 95 mg. percent.

The third patient was a 67 year old white male who had had symptoms of diabetes for one year. At the time of admission to the hospital his initial fasting blood glucose was 264 mg. percent. On diet alone this decreased to 140 mg. percent. His blood glucose also became progressively lower on chlorpropamide administration. Since his discharge he has shown a response to treatment similar to the other patients with fasting blood glucose values ranging from 48 to 82 mg. percent. He has experienced hypoglycemic reactions, usually in the forenoon. Three months after therapy had been started the dosage of chlorpropamide was decreased to 500 mg. and subsequently fasting blood glucose values have ranged between 65 mg. percent and 95 mg. percent.

The fourth patient was a 51 year old white male, who had had diabetes for approximately eight years and who had been treat-

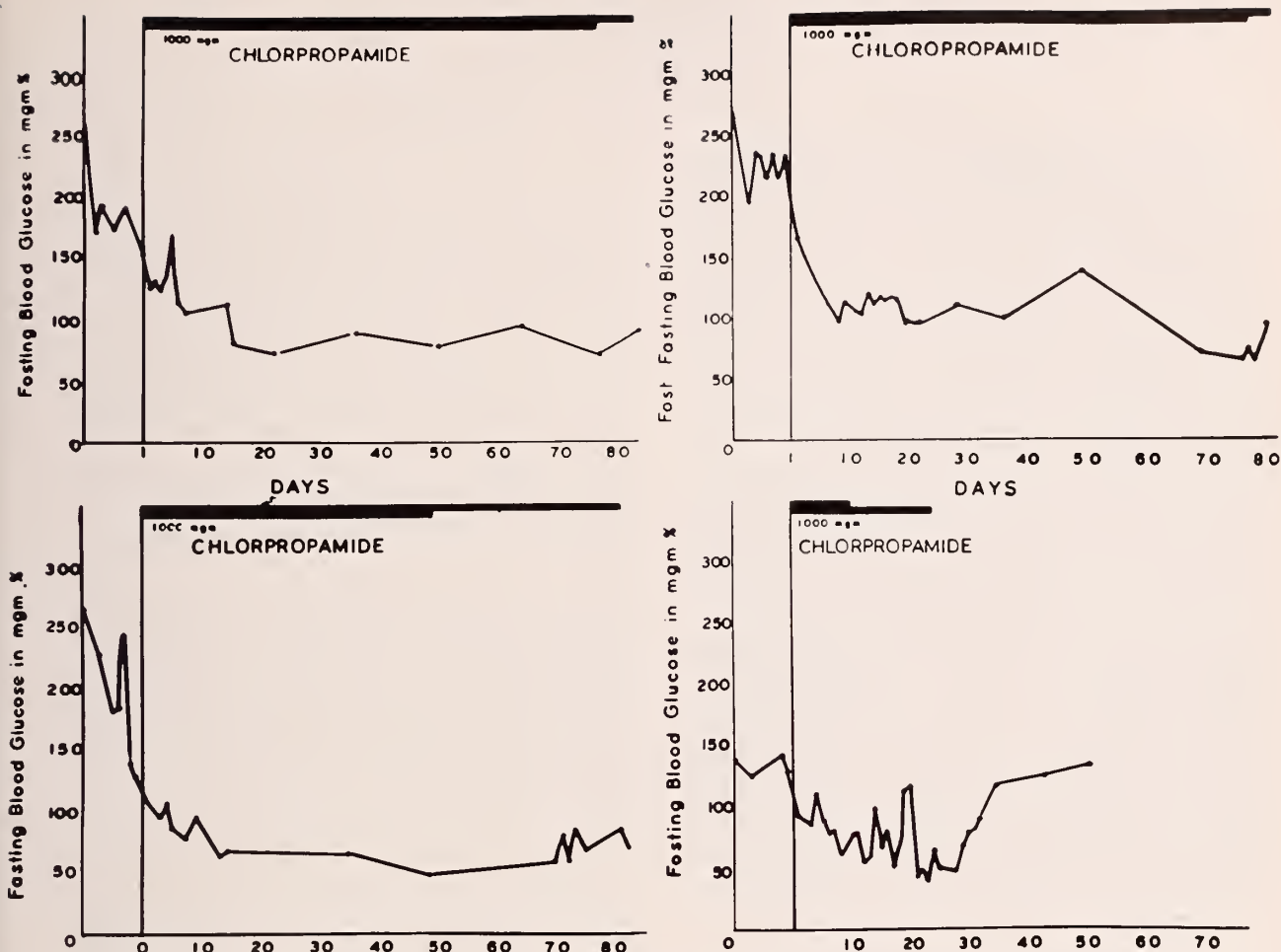


Figure 3. Effect of administration of chlorpropamide on fasting blood glucose.

ed with 10 units of NPH insulin daily. On diet alone his blood glucose rose slowly to 143 mg. percent. On one gram chlorpropamide daily he showed a response similar to that of the other patients. His dose was reduced to 0.5 grams daily after his fasting blood glucose had fallen to 50 mg. percent. The fasting blood glucose began to rise over a period of one week and then fell to a low of 38 mg. percent at which time the drug was discontinued. The fasting blood glucose then rose slowly. Three weeks later his fasting blood glucose was 124 mg. percent, and at five weeks it was 132 mg. percent.

In the cases illustrated here and in the other cases in which chlorpropamide was effective, the blood glucose gradually declined during the first six to 11 days to levels of 100 mg. percent or below, suggesting a cumulative action. After a period of one to two months the fasting blood glucose often

declined further, and in these cases the dosage was decreased to 500 mg. daily. Determinations of urinary glucose were made four times daily. These tests became negative within three-five days after chlorpropamide therapy was started and have continued to be negative for five months.

Data later received from investigators in the Research Department of Charles Pfizer and Co.⁵ showed that blood levels of chlorpropamide in normal volunteers rose gradually before reaching a plateau about the fifth day when a single daily dose was administered. Those on 0.5 gram per day had blood levels which reached approximately 15 mg. percent, and those on one gram per day had levels which reached 25 to 30 mg. percent. Since the "effective" blood level of tolbutamide in patients with mild diabetes has been found to be 10 to 15 mg. percent,⁶ it was recommended that no diabetic

be started on more than 0.5 gram of chlorpropamide daily since this dose produces satisfactory blood levels.

Thirteen patients received chlorpropamide during this study. Those patients whose fasting blood glucose values have shown satisfactory responses have usually been elderly, stable diabetics, often obese, requiring 15 to 30 units insulin daily, or diabetics in whom very strict limitation of carbohydrate intake is effective. A juvenile diabetic and a diabetic whose diabetes began in his third decade both requiring 40 to 60 units insulin daily, showed progressively increasing hyperglycemia, glycosuria and acetonuria during a period of three days in which chlorpropamide, one gram daily was substituted for insulin. On the other hand two elderly patients with very mild diabetes experienced severe hypoglycemic reactions manifested by unconsciousness and blood glucose levels of 28 and 54 mg. percent respectively on this dose of chlorpropamide. Each of nine additional patients with mild diabetes has shown a satisfactory response to chlorpropamide therapy.

There have been no toxic or allergic manifestations as yet in any of these patients. Since chlorpropamide is a chlorinated hydrocarbon, the possibility that liver toxicity might occur has been considered. In approximately 500 patients treated to date by all investigators, two cases of jaundice have been reported.⁵ The jaundice subsided in each instance when the drug was withdrawn. Further information concerning these cases is not available. Our patients have had tests of liver function every two weeks, including bromsulphthalein excretion tests, and no significant changes have occurred. Hemoglobin determinations, white blood counts and complete urinalyses have also been performed at intervals of two

weeks and no evidences of toxicity have been noted.

As with tolbutamide the mechanism of action of chlorpropamide is unknown.

Summary and Conclusions

1. A new sulfonylurea compound, chlorpropamide, has been found to be effective in the treatment of diabetes mellitus. 2. The same criteria useful in the selection of patients for treatment with tolbutamide apply to those being considered for treatment with chlorpropamide. 3. The elderly, mild, diabetic appears to be more prone to hypoglycemic reactions when treated with chlorpropamide than when treated with comparable doses of tolbutamide. 4. The fasting blood glucose seems to reach a plateau during the sixth to the eleventh day after therapy with chlorpropamide is initiated. 5. The onset of action of chlorpropamide is approximately the same, but the duration of action is greater than that of tolbutamide. 6. Gram for gram chlorpropamide seems to be a more potent hypoglycemic agent than tolbutamide. This could be due to greater potency of chlorpropamide at equivalent blood levels, or to better absorption of chlorpropamide than tolbutamide, or to slower detoxification and excretion of chlorpropamide.

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921 N.E. 13th Street, Oklahoma City, Oklahoma

BIRD OF PARADISE SEED POISONING

THE AUTHOR

Harold A. Shoemaker, Ph.D., pictured right, Professor of Pharmacology, is director and founder of the Oklahoma Poison Information Center, University of Oklahoma Medical Center. Since its formal beginning in April, 1956, the Center has served as a necessary part of the Medical School curriculum and has, in addition, provided service of incalculable value to the physicians of the state.

The indefatigable energy of Doctor Shoemaker in providing this service, in addition to his already full schedule is to be highly commended.



H. A. SHOEMAKER, Ph.D.

The Oklahoma Poison Information Center has received a number of calls regarding poisoning in children resulting from eating the seeds of Bird of Paradise, and since very little information is available in the literature, it was thought advisable to publish a note on the subject.

There are two plants which are popularly known as "Bird of Paradise," viz., *Strelitzia Reginae*, and *Caesalpinia Gilliesii*. The former is frequently used by florists in flower arrangements and is not involved. The latter, *Caesalpinia Gilliesii*, also sometimes listed as *Poinciana Gilliesii*, is a rather showy plant used for decorative purposes in yards in Oklahoma and other states where the winters are not too severe. It is a shrub or small tree with many small leaflets, scarcely one half inch long, oblong, obtuse, glabrous. The flowers are light yellow, with brilliant red stamens protruding four-five inches in terminal racemes.¹ The seed pods bear a close resemblance to the green pea pod.

The first report of poisoning by the seeds of this plant was by Cleland² who gave the following report of the illness of four children, age two years and six months to four years:

"They ate the seeds about 10 a.m. and were admitted at 6:30 p.m. They had been vomiting and were drowsy and flushed, and one child had a persistently

high pulse rate. All were discharged in 48 hours."

The Arizona Poisoning Control Information Center³ reports two cases. Each child ingested approximately five of the green seed pods. Within 30 minutes after ingestion, both boys displayed severe gastrointestinal symptoms characterized by nausea, vomiting and profuse diarrhea. The symptoms abated after 24 hours.

We are indebted to Bill J. Simon, M.D., of Perry, Oklahoma for the following detailed report of two cases of poisoning by Bird of Paradise seeds.

"They were brought to my office approximately four hours following the eating of the seeds.

"The symptoms were extreme pallor, nausea, vomiting, drowsiness, and vertigo upon movement. Their blood pressures were taken repeatedly and found

to be 90 50 (they were approximately eight years of age), pupils appeared normal and reacted, mild tachycardia attributed to exertion of vomiting.

"One child ate approximately a handful of seeds, whereas the other ate only six or eight seeds.

"Vomiting was so severe that the child who ingested the larger quantity was hospitalized and administered parental fluids. Daily urinalyses were run for three days and found to be normal.

"The children's symptoms subsided overnight. They resumed normal activities the following day."

There apparently is a difference in the symptoms depending upon whether the entire pod has been ingested or just the seeds. In all of the cases about which we have been consulted only the seeds had been ingested and the symptoms were as outlined in Doctor Simon's report. In the Arizona cases, the entire pods had been eaten and diarrhea

was a prominent symptom along with the vomiting.

It is not known as yet what the substance is that produces the symptoms. The Arizona group[†] is of the opinion that the severe gastrointestinal symptoms are due to the presence of an as yet unidentified irritating substance.

If seen early after a history of ingestion, it is recommended that emesis be induced to remove the material since it is not likely that un-masticated seeds or shreds of pod can be removed by gastric lavage. If vomiting has already developed then supportive therapy only need be used. Keep the patient warm and give adequate fluids. Correct any electrolyte imbalance that may result from the vomiting and diarrhea.

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ABSTRACTS

Enhanced Urinary Excretion of CO-60 Vitamin B-12 Produced by Delayed Release Capsules

P. C. JOHNSON,* and E. S. BERGER,**

Blood, Vol. 8, No. 5, May 1958

Patients without known hematologic disease ingested 8 MCG of Cobalt-60 labeled Vitamin B-12 as a water solution or as various types of Spansules, SKF, timed for release in various areas of the gastrointestinal tract. All groups showed approximately equal fecal excretion. However, the Cobalt-60 labeled B-12 urinary excretion after a loading dose was greatest following delayed release. This suggests that the rate of release of Vitamin B-12 influences its metabolism and that delayed release Vitamin B-12 is absorbed as well or better than Vitamin B-12 released in the stomach where the highest concentrations of intrinsic factor are to be expected.

*Chief, Radioisotope Service, VA Hospital, and Associate Professor of Medicine, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

**Clinical Assistant in Medicine, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

A Comparison of the Serum Lipids, Lipoproteins, Glycoproteins, Urinary 17-Ketosteroids and Gonadotropins in Eunuchs and Control Male Subjects

ROBERT H. FURMAN,* R. PALMER HOWARD,** M. R. SHETLAR,*** E. CORINNE KEATY,**** and RICHARD IMAGAWA.*****

Circulation 17: 1076-1085, 1958

Eunuchs and uncastrated male subjects are compared with respect to serum lipids, lipoproteins and glycoproteins, and with respect to the urinary excretion of gonadotropins and 17-ketosteroids.

The mean high density -S_{1.21} 0-12 ("alpha") lipoprotein concentrations were consistently higher, and the lower density -S_{1.21} 25-40 of 25-70 ("beta") lipoprotein concentrations consistently lower, in eunuchs than in uncastrated controls, irrespective of age at the time of study or time of castration. The ratio of "alpha" to "beta" lipoproteins was also consistently higher in eunuchs. These differences are characteristic of androgen withdrawal or estrogen administration.

The mean serum cholesterol level was significantly lower in the young eunuchs than in young controls. Lower individual serum cholesterol values in the middle aged eunuchs were noted only in those who had undergone gonadectomy prior to the seventeenth year of age. Mean serum cholesterol levels of the middle and old age castrated subjects and controls did not differ significantly.

The mean serum glycoprotein concentration was higher in eunuchs than in the controls. This was also true for the ratio $\frac{\text{glycoprotein hexose} \times 100}{\text{total protein}}$.

Urinary gonadotropin excretion was in excess of 192 mouse uterine units per day in 22 of 24 eunuchs, while only three of 19 control subjects excreted more than 192 units per day.

Urinary 17-ketosteroid excretion per day did not differ significantly between the two groups. However, the urinary 17-ketosteroid concentration was significantly higher in the controls.

*Associate Professor of Research Medicine, Department of Medicine, University of Oklahoma School of Medicine.

**Associate Professor of Research Medicine, Department of Medicine, University of Oklahoma School of Medicine.

***Associate Professor, Department of Biochemistry, University of Oklahoma School of Medicine.

****Research Associate.

*****Research Associate.

Pathways of Carbohydrate Formation in Man

II. "The Effect of Diabetes and Glucocorticoid Administration on Isotope Distribution in Glucose from Subjects Gives 1-C-14 Acetate."

WALTON W. SHREEVE* and ALLEN R. HENNES.**

J. Clin. Inv., July, 1958

1-C¹⁴ Acetate was given intravenously to two ketotic labile diabetics and to two stable adult diabetics who had received large doses of prednisone. Distribution of radioactivity in the glucose isolated from these subjects was determined. Ninety-six to ninety-eight percent of radioactivity was found in carbon 3 and 4 of glucose, consistent with predictions based on known reactions of the Krebs cycle. Small amounts of tracer were found in carbons 1, 2, 5 and 6, suggesting derivation by reactions of the pentose phosphate cycle. Labile diabetics with marked ketosis incorporated approximately 4% of administered radioactivity into free body glucose, approximately two times as much as found in non-diabetics. Administration of prednisone was not associated with an increased incorporation of C¹⁴ into glucose. No abnormal pathway for gluconeogenesis from acetate was revealed by these studies.

*Brookhaven National Laboratories, Long Island, New York.

**Assistant Chief, Medical Service, Veterans Administration Hospital and Assistant Professor of Medicine, University of Oklahoma School of Medicine.



HERBERT H. JANSZEN, M.D.

Herbert H. Janszen, M.D., was appointed July 13, 1958, as Assistant Chief of Psychiatry Service in Charge of Mental Hygiene Clinic at the VA Hospital and as Assistant Professor in the Department of Psychiatry at the University Hospital. Doctor Janszen is the first full time head of the Mental Hygiene Clinic at this hospital in several years.

Doctor Janszen is a native of Texas and received a B.A. degree from the University of Texas in Austin, as well as a M.D. degree from the University Medical Branch at Galveston. He interned at Indianapolis University Medical Center and Glickner-Penrose Hospital in Colorado Springs. He was on the staff at Austin State Hospital for a number of years before taking residency at Winter VA Hospital at Topeka, Kansas, at which time he also held an appointment as Fellow at Menninger School of Psychiatry. Following that, he was Chief of Mental Hygiene Clinic in the VA Regional Office at Kansas City and Instructor on the staff of the Kansas University Medical Center.



JOHN ROBERT SOKATCH, Ph.D.

John Robert Sokatch, Ph.D., joined the faculty of the School of Medicine as Assistant Professor of Microbiology on July 14, 1958. His appointment to the staff fills the vacancy created by the resignation of Doctor Hal H. Ramsey and, like his predecessor, Doctor Sokatch is a bacterial physiologist.

After receiving the B.S. degree in 1950 from the University of Michigan, Doctor Sokatch continued his education at the University of Illinois where he earned the M.S. degree in 1952 and his Ph.D. in 1956. While at Illinois he was associated with Doctor I. C. Gunsalus in teaching bacterial physiology and in research which included studies on glucose-1-C¹⁴ fermentation by lactic acid bacteria and aldonic acid metabolism of *Streptococcus facalis*.

Doctor Sokatch is a member of the Society of American Bacteriologists, the American Chemical Society, Sigma Xi, Alpha Chi Sigma and Phi Lambda Upsilon.



BOYD K. LESTER, M.D.

Boyd K. Lester, M.D., has been appointed Instructor in Psychiatry, University of Oklahoma School of Medicine.

Doctor Lester, a native Oklahoman, graduated from the University of Oklahoma School of Medicine in 1954 and completed his specialty training in this institution.

Doctor Lester is in charge of the Psychiatric Out-patient Clinic at University Hospital, a department in which an increasing number of medical students are participating.



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*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

PRESIDENT'S LETTER



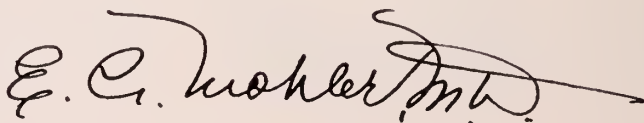
For a thousand years, the mutual respect between law and medicine has been beyond reproach. But, in recent years, abuses and misunderstandings have become far too frequent, creating fear and distrust. This undesirable development is of great concern to our two professions, and both the American Bar and the American Medical Association have taken steps to correct this trend.

In June 1958, at San Francisco, the American Medical Association adopted a new Code for doctors and lawyers which will serve as a guide for physicians and attorneys in their interrelated practice.

This code* was formulated by a joint national Medico-Legal Liaison Committee composed of representatives of the American Bar Association and the American Medical Association.

In keeping with this action, the Oklahoma State Medical Association has taken the first step in preparing a similar code**, which has been presented and approved by the Council. In due time, our communities will take the code to the State Bar Association for further study and approval.

All of this provides an important yardstick for ethical behavior. Let us be sure that medical men will uphold their heritage of dignity and honor.


E. C. MOHLER, M.D.
President

*The Interprofessional Code of the AMA and ABA.

**The proposed state code appears on page 672.

Medical News

AMA Clinical Meeting To Draw 3,000 Physicians

More than 3,000 physicians are expected to attend the American Medical Association's 12th clinical meeting December 2-5 in Minneapolis. Designed to help the family physician solve his daily practice problems, the meeting has been planned in cooperation with Minneapolis physicians. Doctor N. L. Gault, Jr., Minneapolis is the scientific program chairman.

This is the fifth time the AMA has met in the Twin Cities, although it is the first clinical session. Annual meetings were held in Minneapolis in 1913 and 1928 and in St. Paul in 1882 and 1901.

The scientific portion of the program will be held in Minneapolis Auditorium, while the House of Delegates, the AMA policy-making body, will meet at the Leamington Hotel, headquarters for the meeting. In Minneapolis Auditorium will be 100 scientific exhibits prepared by physicians and the AMA Council on Scientific Assembly.

There will also be approximately 130 technical exhibits presented by pharmaceutical houses, medical equipment manufacturers, food processors, medical book publishers and other commercial organizations.

Approximately 200 physicians will participate in lecture meetings, symposiums, and panel discussions on such subjects as neurology and psychiatry, cardiovascular disease, arthritis, orthopedics and various other medical topics.

Approximately 35 medical motion pictures will be shown in Minneapolis Auditorium. A special feature will be a symposium on proctology Wednesday evening, December 3. Moderated by Doctor Raymond Jackman, Mayo Clinic, it will include three films made by Doctor Jackman; Dr. Malcolm Hill, Los Angeles, and Doctor Lawrence Abel, London, England.

Another special feature of the meeting

will be a trans-Atlantic conference between AMA members in Minneapolis and British Medical Association members in Southampton, England. It is scheduled for Friday, December 5. The British association will be holding a clinical session at that time.

Closed circuit colored television again will be shown to doctors attending the meeting. It will be sponsored by Smith, Kline and French Laboratories, Philadelphia pharmaceutical house. Programs originating in the Mayo Memorial Building of the University of Minnesota Hospital will be shown in Minneapolis Auditorium. Among the topics will be cardiac by-pass, neurology, orthopedic problems of the extremities, and caesarian section.

The Woman's Auxiliary to the AMA, which will hold no regular meetings, will sponsor a series of tours for physicians' wives during the meeting.

Registration for the meeting will begin at 8:30 a.m., Tuesday, December 2. The meeting will close each evening at 5:30 p.m., and Friday, December 5, at noon. All reservations for Minneapolis hotels should be cleared through the AMA Subcommittee on Hotels before November 22, 1958.

Foreign Medical Graduate Test Set

More than one thousand graduates of foreign medical schools took the second American medical qualification examination of the Educational Council for Foreign Medical Graduates Tuesday, Sept. 23. The examination was given in more than 60 examination centers throughout the world.

The Educational Council for Foreign Medical Graduates, with headquarters at 1710 Orrington Ave., Evanston, Ill., was founded in 1957 to aid graduates of foreign medical schools to establish their qualification to as-

sume internships or residencies in United States hospitals.

Sponsoring organizations of the ECFMG are the American Hospital Association, the American Medical Association, the Association of American Medical Colleges, and the Federation of State Medical Boards of the United States.

A total of 298 candidates took the first examination, held last March in 17 centers in the United States, and 152 received a passing score, Doctor Dean F. Smiley, ECFMG executive director said.

The second examination was the first to be given at examining centers abroad as well as in the United States. Thirty centers have been established in Latin America, the Far East, the Middle East, and in Europe.

All of the 1,136 candidates taking the 7½-hour examination have had their credentials approved by the ECFMG as having had 18 or more years of formal education, including at least four in a recognized medical school, Doctor Smiley said. He added that the examination tests the candidates' knowledge of English as well as of medicine.

Foreign medical graduates passing the examination who enter the United States on exchange visitor visas may participate in the National Intern Matching Program or may apply directly to a hospital for an internship or residency, Doctor Smiley said.

Foreign medical graduates passing the examination and entering the United States on immigrant visas may be admitted to licensing examinations in at least 14 states, Doctor Smiley said. A number of the medical specialty boards in the United States will accept certification by the ECFMG as satisfying their requirement that candidates for their certifying examinations are graduates of approved schools of medicine, according to Doctor Smiley.

Two American medical qualification examinations will be held in 1959, on Feb. 17 and Sept. 22.

Mine Worker Fund Claims Savings in Medical, Hospital Costs

United Mine Workers Welfare and Retirement Fund's annual report claims a 2.4% or \$1,448,909 savings over the previous year in total cost for hospital and medical care, "notwithstanding the sharp increase in such costs throughout the nation." The report for the fiscal year ending last June 30 frankly states that the savings are due to the elimination of the free-choice-of-physician arrangement and such other procedures as cutting down on stay in hospitals. The report comments:

"The trust fund's official files and records . . . are replete with evidence showing that the primary quality and cost requirements of trust fund regulations were not being met under the previous free-choice-of-physician arrangements whereby the fund had permitted the beneficiary free choice of physician and had paid every physician so chosen for any service he billed the fund, and had allowed him to hospitalize any beneficiary at fund expense whenever and for as long as he desired."

Other report highlights: (1) About 1 million miners and their dependents are covered by the hospital and medical services provided by the fund, and during the past year 85,426 beneficiaries received hospital and medical care benefits, and (2) the fund paid out \$58,135,684 for hospital and medical care which involved 1,458,385 days of hospitalization, 1,311,088 hospital visits by physicians and 969,801 office and out-patient clinic consultations.

Labor Will Again Push Forand Bill

A pamphlet just issued by the AFL-CIO confirms that labor's national leadership is moving the Forand bill high up on its priority list of bills it wants passed in the next session of Congress. The booklet, "Labor Looks at the 85th Congress," is mainly a review of the last two years, but it also looks ahead. It locates the Forand bill as fourth of 17 legislative objectives next year, de-

claring that labor will work for enactment, "through the social security system," of a program of "hospital, nursing home and surgical care for those receiving benefits." The booklet was prepared by the AFL-CIO's legislative department, headed by Andrew J. Biemiller, former Democratic Representative from Wisconsin.

Only objectives ranked higher on the list are "complete overhaul of the Taft-Hartley act," legislation to "safeguard unions from racketeers and from improper activities" on the part of both labor and management, and extension of the fair labor standards act and an increase of the minimum wage to \$1.25 per hour.

The Forand bill would provide hospitalization and surgical care for all social security beneficiaries. Last session it was among social security changes on which hearings were held by the House Ways and Means Committee, and was the subject of considerable discussion, but was not included in other provisions reported out by the committee. On the committee's instructions, the Department of Health, Education and Welfare is making a comprehensive study of the financing of medical care for the aged.

American Board of Ob-Gyn To Hold Part 1 Examinations

The Part 1 Examinations of the American Board of Obstetrics and Gynecology are to be held in various parts of the United States and Canada, on Friday, January 16, at 2:00 p.m.

Candidates notified of their eligibility to participate in Part 1 must submit their case abstracts within thirty days of notification of eligibility. No candidate may take the written examination unless the case abstracts have been received in the office of the secretary.

Current Bulletins outlining present requirements may be obtained by writing to Robert L. Faulkner, M.D., American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6, Ohio.

New Service Protects Physicians' Credentials

A Central Repository for Medical Credentials was established on July 1, 1958 by the World Medical Association in an effort to provide physicians all over the world with a central, protective storage for credentials identifying them as doctors of medicine.

The repository idea resulted from experiences occurring during war or national uprisings where medical records were often lost or destroyed. Many physicians are today unable to utilize their professional skills because of inability to furnish evidence of their training. Under the new program, a physician will always be able to prove himself medically trained and fully accredited to practice.

In the United States, the lifetime cost of service on a one-payment basis to the newly graduated doctor is approximately \$60.00. An actuarial schedule has been established for physicians in various age groups. There is also a ten year service rate offered.

Repository officials suggest that the credentials deposited include an official medical school record, medical diploma and specialist credentials. American doctors should not send their original credentials, but should send photostatic, microfilm or notarized copies of the originals.

Requests for forms and additional information in regard to the Central Repository for Medical Credentials should be directed to the World Medical Association, 10 Columbus Circle, New York 19, New York.

Pamphlet Explains SS Medical Reports

"The Patient Asks for a Medical Report" is a new, informative pamphlet which explains the preparation of medical reports for use in social security disability determinations.

Prepared by the U. S. Department of Health, Education and Welfare, the pamphlet is available to physicians in the state who write to the Oklahoma City District Office of the Social Security Administration, 128 N. W. 4th, Oklahoma City.

Keogh Bill Promotion Planned

A plan of action to obtain passage next year of the Keogh bill has been approved by the executive committee of the American Thrift Assembly and presented to the assembly's board. ATA already is at work contacting candidates for Senate and House.

ATA was formed by a number of professional groups interested in the legislation, including the AMA. The bill would allow the self-employed to defer income taxes on a certain percentage of their earnings if placed in retirement plans.

The blueprint for operations next year was drawn up by a special committee appointed by ATA's executive committee. Active in the work were Doctor William J. Kennard, representing the AMA; Milton F. Lunch, National Society of Professional Engineers; Donald E. Channell, American Bar Association; Lyman Bryan, American Institute of Certified Public Accountants; and Al Payne, National Association of Real Estate Boards. Sending the proposed plan to members of ATA's board, ATA Chairman F. Joseph Donohue wrote:

"The favorable action on the bill in the last session raises our hopes for complete success in the coming session of the Congress. The discussion of this measure on the floor of the House prior to its passage, as well as the later debate on the floor of the Senate before it was ruled 'out of order' was not 'germane' to the bill to which it was sought to be attached by way of amendment by Senator Potter, has pointed to our areas of strength and to our areas of weakness. It is on the latter we hope to concentrate."

Cerebral Palsy Associations Schedule Scientific Session

Each year, as a part of its Annual Meeting, the United Cerebral Palsy Associations hold an Annual Scientific Session for the physicians, medical students and professional workers in related fields who may be concerned with cerebral palsy. This year's Scientific Session will be held Saturday, November 15, 1958, in the ballroom of the Hotel Mayflower, Washington, D. C., from 9:00 a.m. to 5:15 p.m.

The symposium will be entitled "The

Problem of Hemiplegia—A Critical Evaluation." Feeling that cerebral palsy is a professional problem of etiology, diagnosis, management and follow-up, the Association has planned this meeting to be of interest to physicians, medical students, nurses, psychologists, occupational therapists, speech therapists, physical therapists, social workers, educators, and rehabilitation counselors.

No registration fee is required. A complete program is available by writing to United Cerebral Palsy, 321 West 44th Street, New York 36, New York.

Kansas Offers Technology Refresher

The Tenth Annual Postgraduate Course in Medical Technology will be offered on January 5, 6 and 7, 1959 at the University of Kansas Medical Center, Kansas City, Kansas. This course offers physicians an opportunity to refresh and improve the knowledge and skills of their "hands" in the laboratory (medical technologists or other laboratory workers) in laboratory medicine. All phases of the field are covered, especially Microbiology, Clinical Chemistry and Urinalysis.

Outstanding guest speakers will discuss cross infections in the hospital, laboratory aids in the diagnosis of endocrine disease, the significance and identification of urinary casts and practical renal function tests. Other subjects to be discussed include practical tests for studying the coagulation mechanism in the laboratory, cholesterol determination and the medical-legal responsibility of laboratory workers. Each registrant will have an opportunity to attend six of the fifteen different Workshops during the three days. In three of these, the registrant will be able to discuss his bacteriology, hematology or blood bank problems with a panel of experts. Other Workshops will be concerned with electrolyte methodology, P. B. I. determination, serological technics, mycology review, serology and medical photography.

The registration fee for the three days is \$15.00. The program announcement may be obtained by writing to the Department of Postgraduate Medicine, University of Kansas School of Medicine, Kansas City 12, Kansas.

MEDICO-LEGAL BRIEFS

Prepared by the Law Department of the
American Medical Association

ARTIFICIAL INSEMINATION—In a divorce action in Scotland it was held that the conception of a child as a result of artificial insemination by a donor, without the consent of the husband, did not constitute adultery. But the Court ordered the wife to reveal the time and place of the alleged artificial insemination. When she refused to disclose this, the Court ruled that it had to draw the inference of adultery and accordingly granted the divorce.

Opinions of Lord Wheatley, *In Causa, MacLennan v. MacLennan*, Court of Session (Scotland, Jan. 10, 1958 and Feb. 28, 1958)

CARELESS COMMENTS AND RES IPSA LOQUITUR—The plaintiffs, husband and wife, brought a medical professional liability action against a hospital and a physician employed by the hospital. During a sigmoidoscopic examination to determine if the entire rectosigmoid polyp had been removed her intestine was torn. The trial Court entered judgment on defendants' motion for nonsuit at the conclusion of the plaintiff's evidence. On appeal, the California District Court of Appeal held that the plaintiffs were not entitled to have the case submitted to the jury on the doctrine of *res ipsa loquitur* alone. But the Court said that evidence that the defendant physician came out of the operating room and said "Boy, I sure made a mess of things" and that by inserting the sigmoidoscope in the patient's rectum "I busted the intestine," raised a question for the jury as to whether the defendant, in inserting the sigmoidoscope, used the degree of care ordinarily exercised by other doctors of good standing in the community. The judgment of nonsuit for the defendants was reversed.

Wickoff v. James, 324 P. 2d 661 (Calif. April 24, 1958)

TAX DECISION—A physician owned two farms. During the years 1937-1955 the operation of both farms resulted in losses which the physician deducted for income tax purposes. The Commissioner determined that the farms were operated by the taxpayer as a hobby and not with the intent to make a profit and, accordingly, he disallowed deduction of the losses for the taxable years 1947-1951. The Tax Court sustained the deductions and held that the evidence substantiated the taxpayer's testimony that he intended to obtain a profit from the farms, and that he had a reasonable expectation of making a profit after a development period of 10 to 15 years even though he was temporarily disappointed by reason of a depression in the cattle business beginning in 1951. The Court said that the farms were not country estates and they were not used to any material extent for entertaining or recreation.

George N. Zeagler v. Commissioner, Docket 53410, 55075; May 23, 1958; T.C. Memo. 1958-93; opinion by Judge Kern

NEUROSIS—In a recent decision in a medical professional liability case, the Court of Appeals of New York affirmed a recovery of \$15,000 against the defendants, physicians specializing in x-ray therapy, for mental suffering which arose from information the plaintiff received from a dermatologist to whom she had been referred by her attorney for examination. The dermatologist told her that the area of her shoulder which had been burned as a result of the x-ray treatments administered by the defendants should be checked every six months inasmuch as it might become cancerous.

Ferrara v. Galluchio, — N.Y.S. 2d — (N.Y. —).

Further information on the preceding cases may be obtained from the Law Department, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

Coming Meetings

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

POSTGRADUATE PROGRAM*

Oklahoma City, Oklahoma

Individual Postgraduate Courses

ARTHRITIS AND RELATED DISORDERS—Nov. 12, 13, 14, and 15

Second Oklahoma Colloquy on Advances in Medicine. The program will be devoted to Arthritis and related disorders. Twelve nationally prominent investigators in their field will participate and present the results of original work from their laboratories.

ADVANCE ELECTROCARDIOGRAPHY—March 2 through 6

(Prerequisite, Dr. Bayley's Basic Electrocardiography course.)

OBSTETRICAL-GYNECOLOGICAL SYMPOSIUM—March 7

Sponsored by the Oklahoma City Obstetrical and Gynecological Society. There will be two prominent guest lecturers.

OPHTHALMOLOGY-OTOLARYNGOLOGY SYMPOSIUM—March 12 and 13

Sponsored by Oklahoma City Society of Ophthalmology and Otolaryngology.

Guest Lecturers:

Michael J. Hogan, M.D., Ophthalmologist, San Francisco.

Prominent Otolaryngologist to be announced.

ORTHOPEDIC SYMPOSIUM—April 10 and 11

Treatment of Athletic Injuries.

Sponsored by the Regional Committee on Trauma of the American College of Surgeons.

FIFTH ANNUAL COMBINED SURGERY, RADIOLOGY, PATHOLOGY SYMPOSIUM—May 14 and 15

Diagnosis and Treatment of Thyroid Diseases.

Sponsored by the Oklahoma Association of Pathologists, Oklahoma Association of Radiologists and Oklahoma Chapter of American College of Surgeons. Guest participants of national reputation in surgery, radiology and pathology will participate.

OKLAHOMA ASSOCIATION OF HOUSE STAFF PHYSICIANS—May 22

Two guest lecturers and presentation of original papers by members of the various house staffs will highlight this program. Participating hospitals are: Hillcrest Medical Center, Tulsa, St. John's, Tulsa; McBride, Mercy, St. Anthony, University, Veterans Administration, Wesley, Oklahoma City; Central State Hospital, Norman.

SERIAL POSTGRADUATE COURSE

Postgraduate Division

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

Oklahoma City, Oklahoma

1958-1959

Nov. 19—Surgery—Ano-Rectal Lesions and Their Management.

Dec. 10—Medicine—The Selection of Patients for Cardiovascular Surgery.

Jan. 14—Pediatrics—Diagnosis and Management of Heart Disease in Infancy and Childhood.

Feb. 11—Urology Symposium and C. B. Taylor Lectureship. (Guest Lecturer to be Announced.)

Mar. 11—Medicine—Advances in the Diagnosis and Management of Common Allergic Disorders.

April 8—Anesthesiology—Anesthesia for the Part-Time Anesthetist.

May 13—Pediatrics—Antimicrobial Therapy and Treatment of Infectious Disease in Childhood.

June 10—Surgery—Herniae.

Designed so physicians may attend four hours of formal instruction in the above fields while spending only one-half day from their office, this series is approved for credit by the Oklahoma Academy of General Practice. Time will be 3:30 to 8:30 p.m. on the Second Wednesday of each month, September through June. Registration is \$3.00 per session or \$25.00 for the entire series.

*Further information may be obtained from the Office of Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th Street, Oklahoma City, Oklahoma.

SECOND OKLAHOMA COLLOQUY ON ADVANCES IN MEDICINE

November 12, 13, 14 and 15, 1958

The Second Oklahoma Colloquy on Advances in Medicine will be held on November 12, 13, 14 and 15. Eleven nationally prominent investigators in their field will participate and present the results of original work from their laboratories.

Registration will be open to all physicians. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

ALPHA OMEGA ALPHA LECTURESHIP

December 14, 1958

8:00 p.m.

University of Oklahoma School of Medicine Auditorium

Guest speaker for the Alpha Omega Alpha Lecture-ship will be Owen H. Wangenstein, M.D. Additional information may be obtained by writing to Henry Mosley, President of the Oklahoma Chapter of A.O.A., 1108½ Northeast 18th Street, Oklahoma City, Oklahoma.

**THE UNIVERSITY OF TEXAS
CLINICAL CONFERENCE ON CANCER
CHEMOTHERAPY**

November 14-15, 1958

Houston, Texas

The University of Texas M.D. Anderson Hospital and Tumor Institute and The University of Texas Postgraduate School of Medicine will present the third annual clinical conference on November 14 and 15, 1958 at the Texas Medical Center in Houston.

Eight hours credit will be certified by the American Academy of General Practice for attendance at this conference. An advance \$5.00 registrar's fee must accompany the registration for the Academy. Further information and a detailed program may be obtained from the University of Texas Postgraduate School of Medicine, Jesse Jones Library Building, Houston, Texas.

**THE UNIVERSITY OF TEXAS
POSTGRADUATE SCHOOL OF MEDICINE**

Practical Electrocardiography*

December 15-19, 1958

Houston, Texas

The University of Texas, Postgraduate School of Medicine announces a course in Practical Electrocardiography to be held in Houston, December 15-19, 1958. The course will emphasize Spatial Vector-Electrocardiography. The J.J. and Una Truitt Lecturer for this course will be Robert F. Grant, M.D., of the National Heart Institute.

Anesthesiology*

February 18, 19, 20, 1959

Houston, Texas

The Fourth Annual Course in Anesthesiology to be offered by the University of Texas Postgraduate School of Medicine will be held February 18, 19, 20, 1959 in Houston. The course is designed to review theory and practice of commonly used anesthetic techniques and will include discussions of some of the newer drugs.

*Address all inquiries to: The University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Houston 25, Texas.

INTERNATIONAL MEDICAL ASSEMBLY

of

SOUTHWEST TEXAS

January 26, 27, 28, 1959

Gunter Hotel

San Antonio, Texas

The International Medical Assembly of Southwest Texas will hold its annual meeting January 26, 27, 28, 1959 in San Antonio, Texas at the Gunter Hotel. Further information may be obtained by writing to Mr. S. E. Cockrell, Jr., Executive Secretary, 202 West French Place, San Antonio, Texas.

**AMERICAN CANCER SOCIETY
ANNUAL SCIENTIFIC SESSION**

**SYMPOSIUM ON CANCER OF THE COLON AND
RECTUM**

October 20-21, 1958

Biltmore Hotel

New York City

A complete program of the Symposium on Cancer of the Colon and Rectum to be presented at the Annual Scientific Session of the American Cancer Society may be obtained by writing to Director, Professional Education, American Cancer Society, Inc., 521 West 57th Street, New York 19, New York.

7th ANNUAL CANCER SEMINAR

January 22-24, 1958

Phoenix, Arizona

The 7th Annual Cancer Seminar of the Arizona Division of the American Cancer Society, will be held January 22-24, 1959 at the Paradise Inn, Phoenix, Arizona. Detailed information is available by writing to Seminar Committee Chairman, Edward H. Bregman, M.D., 543 East McDowell Road, Phoenix, Arizona.

**INTERSTATE POSTGRADUATE MEDICAL
ASSOCIATION**

November 10-13, 1958

Cleveland, Ohio

Statler-Hilton Hotel

The 43rd Annual Scientific Assembly of the Interstate Postgraduate Medical Association will be held in Cleveland, Ohio, November 10-13. Write to Erwin R. Schmidt, M.D., Secretary, Interstate Postgraduate Medical Association of North America, Box 1109, Madison 1, Wisconsin for complete details.

Organization News

Garrison Appointed to U.S. Jaycees Committee

George H. Garrison, M.D., Oklahoma City pediatrician, has been appointed by the American Medical Association to serve on the Community Health Advisory Committee of the United States Junior Chamber of Commerce.

The A.M.A. was asked to appoint three representatives to the committee whose function will be to review and discuss phases of the Jaycees' Community Health Program that are now in existence or that might be proposed in the future.

Included in the over-all committee will be representatives from the American Hospital Association, the American Dental Association and the Association of State and Territorial Health Officers. This is the first time that the Jaycees' have asked the medical profession to assist in planning its Community Health Program.

Doctor Ritzhaupt Is New Senate Dean

Louis H. Ritzhaupt, M.D., will become the new dean of the Oklahoma Senate when the Legislature convenes for its 27th session in January.

The Guthrie physician inherits the title from Jim Rinehart, El Reno, who recently resigned his Senate seat in order to run in the gubernatorial primary.

Doctor Ritzhaupt will be closing out his eleventh term in the Senate. He was first elected for the 14th Session and served continuously until 1952, when he was defeated by Republican Carl Morris. He won the post back in 1956.

Long active in the medical profession as well as state government, he served as president of the Oklahoma State Medical Association during the 1935-36 term.

Medico-Legal Code Drafted

In keeping with the recommendation of the A.M.A.'s House of Delegates at their June meeting in San Francisco, the Oklahoma State Medical Association is now working on a Medico-Legal Interprofessional Code designed to strengthen mutual understanding and improve relationships between the physician-attorney groups in the state. A preliminary code has been drafted by the OSMA's Committee on Medico-Legal Relations which received endorsement from the Council at its September 20 meeting. The proposed code will now be negotiated with representatives of the Oklahoma Bar Association before being referred to the House of Delegates for final ratification.

PROPOSED MEDICO-LEGAL INTERPROFESSIONAL CODE

Whereas, The American Medical Association at its annual meeting held in San Francisco, California, June 1958, adopted a resolution proposed by its Board of Trustees, that an interprofessional code of understanding and cooperation be formulated by the State Medical Associations and County Medical Societies of the United States with corresponding Bar Associations of law, and:

Whereas, our Oklahoma State Medical Association at the request of our President, E. C. Mohler, M.D., has appointed a committee to work with the Bar Association in the preparation of an interprofessional code. The committee individually and jointly has examined the codes of other states, pursued the ramifications reflecting local problems and their solution. We realize that mutual trust, cooperation, and confidence must be exercised by both professions if a code is to be rewarded with success. We therefore, present the following for consideration:

Preamble

The current code of ethics of the medical profession and the canon of ethics of the Bar are hereby adopted by reference as though set out herein. The professions of law and medicine owe a mutual cooperative duty to the courts and the American people. That duty and obligation is better executed when each profession has and exercises respectful understanding and cooperation. Justice is, and must always be our mutual goal, unhampered by ignorance, laziness, incompetence, perjury or self service at the expense of justice.

We recognize basic that the ethical code of both professions must be adhered to; that freedom of choice for patient or client applies both to physicians and attorneys. We further recognize that an honest cooperative attitude is needed within each profession for the members thereof and that the greatest element necessary to the success of this interprofessional code is the exercise of the Golden Rule intraprofessionally by both physicians and attorneys. Emotional instability, egotistic self service, incompetence, flamboyant exhibitionism, dictatorial dominance, wreckless and careless disregard for truth are likewise foreign and inimical to our mutual objective. The oath is a serious solemn vow not to be taken lightly nor handled carelessly. Justice, being our mutual goal, must never be sacrificed to satisfy personal convenience or monetary whims. Every litigant is entitled to his day in court, equal opportunity to present his claim unhampered by personal convenience or financial status. The physician is not a partisan in litigation and is devoid of bias, prejudice and personal interest and that the attorney is the advocate representing his side of litigation to the best of his ability with an object of justice.

Medical Reports

Justice demands that all evidence necessary to establish the merits of litigation be available to the court and jury. The fact that it may be difficult to procure or inconvenient to present is no acceptable excuse for failure to do so. The attorney will prepare authorization and waiver for release of information signed by the patient client and present this to the physician. This request with waiver will specifically designate the information desired. Requests for any and all information you possess etc., will be deemed improper. Where office records, history and physical, diagnosis, treatment, x-rays, electrocardiograms, electroencephalograms, blood, urine, and prognosis are desired the request and/or waiver will so state. The physician on request with waiver duly signed by the patient client will furnish the requested information. A reasonable time will be given for this. Consideration will be given to the convenience and time of the physician. Copies of other medical reports will be made available to the examining physician by the attorney.

Conference

The ends of justice are better served when there is mutuality of understanding between attorney and physician. Conferences at different stages of litigation including pretrial are recommended. Conference between attorney and physician should precede request for reports, subpoena and court testimony. Arrangements for the conference by the attorney should be scheduled to best serve the convenience and conserve the time for both attorney and physician. The attorney will not attempt to influence the physician in any manner concerning examinations reports or the subject matter thereof.

The subpoena is a legal process to compel the attendance at court as a witness. Subpoena duces tecum is a subpoena ordering the witness to bring with him books, documents, office records or other evidence described in the writ. The subpoena is a necessary and indispensable writ of justice. The physician will accept same and comply with its request. A physician may appear as a witness by agreement with the attorney or he must appear in response to a subpoena. The attorney, when he first finds it necessary to have a physician subpoenaed, should contact the physician beforehand telling him of the subpoena and explaining the necessity thereof. The subpoena of a medical witness, expert or otherwise, without notice, conference, understanding and agreement as to compensation, will be considered improper conduct.

Medical Testimony—Expert

In many cases of litigation, especially personal injury, psychiatric and post mortem justice requires the procurement and presentation of expert medical testimony. The Oklahoma State Medical Association will be cooperative in this matter of helping provide for all litigants the availability of expert medical testimony. The primary responsibility for this rests with the attorneys, but should they for any good and sufficient reason be unable to procure same, the Oklahoma State Medical Association will on written request cooperate to secure and furnish the names of qualified experts who will examine the client, make necessary reports and testify if necessary. Proper necessary conference and arrangements will be made by the attorney. In all cases, the convenience of the physician, the time and expense required to adequately perform the duties of the expert, agreement in every particular concerning same must be reached. The medical expert is not an advocate, that being the exclusive role of the attorney, and he will therefore confine his remarks to his knowledge of the medical facts and opinion. Conference between physician and attorney should always be held in litigation requiring medical participation. The physician should be courteous to the cross examiner, and vice versa. The dispatch of justice by the courts cannot be governed by the convenience of litigants, attorneys, witnesses, professional or otherwise. The physician is admonished to use language understandable to the jury avoiding, as much as possible, scientific terms and, where they must be used, explain their meaning in terms understandable to the jury. The attorney should not require the physician to wait around the court house before testifying. In testifying the physician must answer questions as concisely and objectively as possible, avoid bias favoritism or personal interest. The physician should remember that his testimony is not designed to impress or edify, but to explain. Emotional flairs have little or no value in court; they lower the dignity of the proceeding and hinder the cause of justice. The examination of the medical witness should be conducted in a dignified and respectful manner. The relationship of attorney and physician should be founded on mutual

respect, tolerance, courtesy and candor. A physician should not advise on the monetary amount of damages a patient should seek to recover. Where medical testimony or reports are at a wide variance, enough to raise the question of bias, prejudice, incompetence, perjury or ignorance, this will, if thought necessary, be presented to the committee of the whole for proper evaluation and disposition. It is recognized that there can be honest competent difference of opinion. Where possible, written reports will be used in lieu of court appearance. Whenever possible, the physician shall be placed on telephone call to minimize time loss in court. The attorney shall not abuse, badger, brow-beat nor humiliate any witness including a physician.

Compensation

Physicians shall never participate nor testify on a contingent fee basis. His fee, nor the amount thereof, shall not be influenced by, nor dependent upon the outcome of litigation. The attorney may, and frequently does, represent his client on a contingent fee basis. A reasonable charge to the patient by the physician may be made for conference, examinations, preparation and rendition of reports, review of office and hospital records and research of authorities, where necessary. If settlement is had at any stage of litigation, the attorney will use his efforts to secure payment of the physician's fee. Primary responsibility for the fee is the patient litigant. The fee shall be in accordance with the prevailing practice in his community for a similar service. The physician may elect to wait for his fee, reduce it, or cancel it altogether, but it must not be contingent nor subject to fluctuation on the amount of recovery. The attorney will do everything ethical and reasonable to see that the physician is paid for his services and no charge shall be made to the physician for this service. The attorney, in dispensing money on settlement or after judgment, has an obligation to use his efforts to secure payment on the physician's fee. If the client refuses payment, the attorney should notify the physician promptly. The attorney, in a proper case, may advance payment to the physician as a reimbursable expense. At the time of his employment, the attorney may request authorization and assignment of his client for the payment of any and all medical fees in conjunction with the litigation, and that this assignment constitutes a lien on any settlement or judgment. A reasonable expert witness fee is a proper and necessary item of expense in litigation involving medical facts. When an attorney causes a physician to be subpoenaed to appear in any legal proceeding as an expert witness, the attorney will timely appraise the physician of the subpoena before service and shall take action requesting the court, if necessary, to allow compensation for services of an expert witness. In the matter of depositions, conference and agreement will be had by the attorney as to time, place and payment.

Joint Medical Legal Committee

The Medical and Bar Associations of the State of

be staggered from one to five years; that the com-Oklahoma shall each appoint five members from their membership, who shall jointly constitute the committee. It is recommended that, when adopted by each profession, the committee membership terms mittee meet quarterly, or as often as circumstance warrants, and that a quorum of the committee shall be three members of each profession; that minutes of the meetings be kept and an annual report made to each profession at its annual meeting; that chairmanship be elective and alternate between the professions. The joint committee shall:

- (a) Diligently work for a better and improved relationship between the medical and the legal professions.
- (b) Work with the courts to improve the administration of justice.
- (c) Cooperate to the end that all litigants will have their day in court, unhampered by financial status, race, creed or religion.
- (d) Consider complaints from either profession, attempt to harmonize them and, where circumstances justify, refer same with or without recommendations to the grievance or other appropriate committee or body of one or both professions for consideration.
- (e) Promulgate such procedures or suggestions as found necessary to make effective the objectives of the committee.
- (f) Report annually to each profession the work of the committee, with any recommendations for improvement.

Enactment

This code of cooperation between the medical and bar associations of the State of Oklahoma shall become effective on adoption by the House of Delegates of the respective professions and signed by the presidents of each.

Approval

The code of cooperation, as set forth herein, has been approved by the committee to draft same by the Oklahoma State Medical Association and is being submitted to the Bar Association of the State of Oklahoma for their considered, cooperative action.

Speaker for A.O.A. Fall Lectureship Announced

Owen H. Wangenstein, M.D., Chief of Surgery at the University of Minnesota School of Medicine and Co-editor of *Surgery* will deliver the fall Alpha Omega Alpha Lectureship to be held at 8:00 p.m., Friday, December 14, 1958, at the University of Oklahoma School of Medicine Auditorium.

Doctor Wangenstein's topic will be "The Peptic Ulcer Problem." All physicians are invited to attend.

John F. Hackler Memorial Scholarship Created

The East Central Oklahoma Medical Society shortly after Doctor Hackler's death on September 3, 1958, created a scholarship in his memory by a resolution:

"Whereas, John F. Hackler, M.D., in his life of public service did fulfill the finest traditions of a true physician and humanitarian, and

"Whereas, this fulfillment was made possible only by personal sacrifice and often by detriment to his own health, and

"Whereas, as a teacher, counselor and enthusiastic participant, Dr. Hackler did actively support the advancement of education at all levels,

"Therefore Be It Resolved:

"1. That the East Central Oklahoma Medical Society does this day establish the John F. Hackler Memorial Scholarship fund.

"2. That the fund shall have as its purpose the perpetuation of the memory of Dr. Hackler and shall serve as a reminder to all who participate of the worthiness of humanitarian ideals which are achieved through sacrifice.

"3. That the fund shall render financial assistance to worthy students and shall be administered by the Society with the assistance of competent legal and financial advisors.



JOHN F. HACKLER, M.D.

"4. That the fund shall have as its source of revenue voluntary contributions made not only by members of society but also by all of Dr. Hackler's friends, both lay and professional."

John Hackler was dedicated to the field of Public Health which he made an integral part of medical and community life. The resolution reflects the respect and admiration his colleagues in medicine had for him.

SYMPOSIUM on the TREATMENT OF LYMPHOMAS and LEUKEMIAS

sponsored by

American Cancer Society, Oklahoma Division

Venetian Room
Skirvin Hotel

9:00 a.m. — 5:00 p.m.
DECEMBER 6, 1958

Oklahoma City,
Oklahoma

Medico-Legal Discussion Held



State medical and legal leaders are seen as they met at the Tulsa Club on October 8, 1958, for preliminary discussions of a projected medical-legal code of cooperation between the Oklahoma State Medical Association and the Oklahoma Bar Association.

Standing, left to right, are. Doctor Francis R. First, Jr., Vice-President, Oklahoma State Medical Association, Checotah; Doctor Hugh Perry, President, Tulsa County Medical Society, Tulsa; Mr. Richard O. Battles, Attorney and District Claims Manager, St. Paul-Mercury Company, Tulsa; Doctor Wilkie D. Hoover, Oklahoma Delegate to the American Medical Association, Tulsa; Doctor James W. Kelley, President-Elect, Tulsa County Medical Society, Tulsa; Mr. Dick Graham, Executive Secretary, Oklahoma State Medical Association, Oklahoma City; Mr. Garrett Logan, President, Oklahoma State Bar Association, Tulsa; Mr. Jack Spears, Executive Secretary, Tulsa County Medical Society, Tulsa; and Doctor John E. McDonald, member of the Legislative Committee of the American Medical Association.

Seated, left to right, are: Judge Harry L. S. Halley, Chief Justice, Oklahoma State

Supreme Court, Oklahoma City; Doctor Charles E. Wilbanks, President, Oklahoma Academy of General Practice, Tulsa; Mr. Arthur Coltrin, President-Elect, Oklahoma State Hospital Association, Bartlesville; Dr. Alfred T. Baker, President-Elect, Oklahoma State Medical Association, Durant; Mr. Truman B. Rucker, Attorney, Tulsa; Doctor Marshall O. Hart, Chairman of the Medical-Legal Committee, Oklahoma State Medical Association; Mr. C. Joseph Stetler, Director, Law Department, American Medical Association, Chicago, Illinois; Mr. Robert L. Shepherd, Attorney, Tulsa; Doctor Worth M. Gross, Tulsa; and Judge Lewis C. Johnson, District Judge, Tulsa.

A preliminary draft of a suggested medical-legal code of cooperation was completed last month by Doctor Hart and his Medical-Legal Committee and forwarded to the Oklahoma State Bar Association for review. Similar codes of cooperation were urged by the House of Delegates of the American Medical Association in policy-making actions taken last June at San Francisco. The codes are designed to improve doctor-lawyer relationships.

Chiropractors Oppose "Forced" Immunization

Branding a proposed mandatory immunization ordinance in Tulsa as "Stalinistic," the Oklahoma Chiropractic Physicians Association recently asked the Tulsa City Commission not to adopt it.

Backed by the Tulsa County Medical Society, the City-County Health Department and others, the ordinance would require standard immunizations for children before they could enrol in public or private schools.

The chiropractors said in a letter that "... as Americans and as citizens, we compliment any movement making immunizations available for those who desire this form of medication, despite its uncertain and unproven results."

But "compulsion," the letter said, "strikes at the very roots of our heritage, and has the odor and stench of dank and dark recesses behind the Iron Curtain."

The ordinance would not be mandatory for persons objecting on religious grounds, but the chiropractors say this is not enough, that "... the religious freedoms of overwhelming majorities are jeopardized."

Under Oklahoma law, chiropractors are not permitted to administer injectables.

Sister Kenny Foundation to Continue Scholarships

The Sister Kenny Foundation announces continuation of its program of post doctoral scholarships to promote work in the field of neuromuscular diseases. These scholarships are designed for scientists at or near the end of their fellowship training in either basic or clinical fields concerned with the broad problem of the neuromuscular diseases.

Each grant will provide a stipend for a five year period at the rate of \$5,000 to \$7,000 a year depending upon the scholar's qualifications. Candidates from medical school in the United States and Canada are eligible.

Inquiries should be addressed to: E. J. Huenekens, M.D., Medical Director, Sister Elizabeth Kenny Foundation, Inc., 2400 Foshay Tower, Minneapolis, Minnesota.

Baker Elected to Crippled Children's Board

OSMA President-Elect Alfred T. Baker, M.D., has been elected to the Board of Directors of the Oklahoma Society of Crippled Children, succeeding the late L. S. Willour, M.D., McAlester.

Announcement of the election of the Durant physician was made at a recent meeting of the Durant Rotary Club by H. Dick Clarke, Executive Secretary of the Society.

Doctor Baker will represent Pittsburg, Latimer, LeFlore, Atoka, Pushmataha, McCurtain, Bryan and Choctaw counties on the board.

Carver Chiropractic College Closed

Oklahoma is now without a Chiropractic college due to the closing of the Carver Chiropractic College in Oklahoma City. Representatives of the profession said the school was closed for economic reasons and explained that the small enrollment would not support the operation.

The students of the Oklahoma school have been transferred to out-of-state colleges with the majority of them going to St. Louis' Logan Chiropractic College where the records of the local school were also sent.

REQUESTS FOR SCIENTIFIC PAPERS and EXHIBITS

53rd Annual Meeting of the Oklahoma State Medical Association

April 20-22, 1959 Maya Hotel Tulsa, Okla.

A limited number of scientific papers are needed to complete the scientific program of the 1959 Annual Meeting. The title and a short synopsis of the suggested paper should be mailed to Byron W. Steele, Jr., M.D., Chairman, Scientific Works Committee, 325 Utica Square Medical Center, Tulsa, Oklahoma. Final date, November 30, 1958.

Members of the OSMA, as well as recognized schools and organizations, are invited to submit exhibits for inclusion in the Scientific Exhibit section at the 1959 Annual Meeting. Write for an application blank and summary of rules and regulations by addressing: Mr. Jack Spears, Executive Secretary, Tulsa County Medical Society, B9 Medical Arts Building, Tulsa, Oklahoma. Completed applications must be returned to the same address not later than January 1, 1959.



Seated left to right at the head table are: Robert East, Secretary of the Oklahoma Chapter of the Student AMA; Norma Sneed, Treasurer, Oklahoma Chapter; S. N. Stone, M.D., Associate O.U. Dean of Clinical Instruction; Glenn C. Couch, Ph.D., Dean of the University College, Norman; E. C. Mohler, M.D., President of the OSMA; A. T. Baker, M.D., President-Elect of the OSMA; Herschel L. Douglas, President, Oklahoma Student AMA; Russell F. Staudacher, Executive Secretary, national Student AMA; A. N. Taylor, Ph.D., Associate O.U. Dean of Student affairs; William Kirkham, O.U. Student and Treasurer of the national student organization; Ben H. Nicholson, M.D., Editor-in-Chief of the Journal; and Robert Stobaugh, Vice-President of the local student group.

Two Hundred Attend Student A.M.A. Dinner

Over two hundred were in attendance at the Annual OSMA-sponsored dinner for the members of the Oklahoma Chapter of the Student American Medical Association which was held October 17 at the Petroleum Club, Oklahoma City. In addition to the medical students, the group included officers and councilors of the OSMA as well as preceptors and several special guests.

The annual dinner provides the OSMA with an opportunity to demonstrate its endorsement of the outstanding student organization at the University of Oklahoma School of Medicine and, at the same time, permits physicians and students to become better acquainted on an individual basis.

Principal speaker of the evening was Russell F. Staudacher, Executive Secretary of the Student AMA, Chicago, who discussed the activities of the national student organization.

OSMA President E. C. Mohler, M.D., also



addressed the group concerning the value of participation in organized medicine. Herschel L. Douglas, President of the local student organization, responded with an expression of gratitude for the dinner.

Medicare Fees Changed

Many adjustments were made in the Medicare Schedule of Allowances during the renegotiation of the OSMA contract in July. Although the Association has terminated its official responsibility in the program (see October *Journal*), individual physicians may continue to see Medicare patients and submit statements for services rendered.

At the time of the Association's withdrawal from the program, the Medicare Committee had contracted for the printing of a new physician's manual for subsequent distribution to the profession. Drastic changes in the determination of eligibility of Medicare patients and a cutback in the

variety of services offered not only caused the termination of the contract but also made the manual obsolete before the printing was completed.

The maximum fees printed below represent changes in the original contract, as of July 1, and are not intended to reflect changes of policy imposed by the Office of Dependents Medical Care on October 1. It is assumed that new eligibility regulations and new policies concerning conditions to be covered will be contained in a new manual to be printed and distributed by an agency other than the Oklahoma State Medical Association.

HOSPITAL VISITS		0072	5.00	0238	100.00
0012	\$12.50	0073	10.00	0260	12.00
0013	5.00	0074	5.00	0261	28.00
0014	5.00	0076	15.00	0262	60.00
0015	4.00	(Area over three inches By Report)		0265	12.00
0022	\$15.00 (week or % thereof)	0077	15.00	0266	4.00
0023	40.00	0078	10.00	0275	60.00
0024	3.00	0079	5.00	0276	B. R.
CONSULTATIONS				*0288	20.00
0026	15.00	SPECIAL PROCEDURES FOR		0289	80.00
0027	35.00	REHABILITATION		0291	40.00
SPECIAL MEDICAL		0081	4.00	0295	80.00
PROCEDURES		0083	4.00	0296	40.00
0028	25.00	0084	10.00	0309	80.00
0029	15.00	0085	4.00	0310	60.00
0032	20.00	0087	5.00	0311	80.00
0033	10.00	0088	2.00	0319	80.00
0035	5.00	0090	5.00	0325	100.00
0036	7.50	0091	3.00	*0351	10.00
HOME OR OFFICE VISIT		0092	3.00	*0352	16.00
0042	10.00	0094	3.00	*0353	40.00
0043	10.00	0096	3.00	*0354	8.00
0044	5.00	0097	6.00	*0355	12.00
0046	10.00	0098	4.00	*0356	16.00
0047	5.00	0099	3.00	*0359 (New Code No.)	B. R.
0048	7.50	INTEGUMENTARY SYSTEM		0431	40.00
0049	5.00	*0101	5.00	0441	40.00
SPECIAL PROCEDURES FOR		*0102	5.00	0445	65.00
ACUTE EMOTIONAL DISORDERS		*0108	10.00	0446	280.00
0061 First Week	\$100.00	*0114	5.00	0447	400.00
Subsequent Week	75.00	*0115	5.00	0451	100.00
0062 First Week	75.00	*0125	10.00	0457	130.00
Subsequent Week	60.00	*0130	8.00	0470	250.00
ASSISTANTS		0131	B. R.	E0480	B. R.
10% of surgical fee; not less than		*0140	5.00	E0481	B. R.
\$25.00, but never more than		*0145	5.00	MUSCULOSKELETAL SYSTEM	
50% of surgical procedure.		*0171	8.00	0621	B. R.
TREATMENT OF MINOR		*0180 (Use Multiple Procedure		0686	25.00
INJURIES		Formula)		0687	40.00
0071	\$10.00	*0190	20.00	0688	90.00
		*0230	8.00	0691	25.00
		0231	20.00	0693	125.00

0694	209.00	2071	45.00	2881	15.00
0696	25.00	2074	60.00	2883	25.00
0699	125.00	2077	65.00	2884	100.00
0701	220.00	2081	80.00	2885	150.00
0702	400.00	2086	5.00	2886	200.00
0703	25.00	2087	45.00	2887	12.00
0704	120.00	2101	80.00	2894	B. R.
0705	200.00	2103	B. R.	2901	B. R.
0706	160.00	2104	B. R.	*2915	20.00
0720	100.00	2111	65.00	*2961	8.00
0721	130.00	2113	70.00	2971	25.00
*0761	8.00	2117	115.00	2974	B. R.
*1046	8.00	2120	115.00	2977	15.00
*1047	6.00	2121	70.00	*2982	10.00
1450	B. R.	2122	70.00	2983	40.00
*1452	16.00	2123	70.00	2984	90.00
*1511	8.00	2124	45.00	2986	90.00
*1517	4.00	2126	100.00	2987	180.00
1581 (New Code No.) 25% for each additional tendon		2127	50.00	2989	50.00
		2128	5.00	2990	200.00
1584 (New Code Co.) 25% for each additional tendon		2131	225.00	2992	60.00
		2132	300.00	2996	40.00
		2133	375.00	3000	40.00
RESPIRATORY SYSTEM		2134	375.00	3004	40.00
*1901	5.00	2135	450.00	3011	B. R.
*1905	10.00	2141	135.00	3021	50.00
*1911	8.00	2142	300.00	3046	B. R.
*1915	8.00	2144	80.00	*3121	60.00
1916	20.00	2147	325.00	*3123	60.00
1917	60.00	*2183	12.00	3176	240.00
1922	140.00	*2186	8.00	3181	B. R.
1928	130.00	2194	300.00	3204	75.00
1935	40.00	*2221	20.00	3261	150.00
*1941	10.00	*2222	8.00	*3283	8.00
1942	40.00			3321	140.00
1943	B. R.	CARDIOVASCULAR SYSTEM		3322	15.00
1950	240.00	2331	75.00	3325	200.00
1953	150.00	2353	450.00	3331	200.00
*1965	8.00	2424	B. R.	3333	200.00
*1971	8.00	2431	80.00	3335	200.00
*1974	10.00	2432	120.00	*3341	8.00
1975	40.00	2445	10.00	*3392	12.00
1978	100.00	2446	100.00	3411	5.00
1979	100.00	Subsequent	50.00	3416	5.00
*1981	8.00	2448	20.00	3417	25.00
1985	60.00	2449 (New Code No.)	20.00	*3441	8.00
1986	80.00	2454	5.00	*3456	12.00
1988	160.00	2461	5.00	3550 (New Code No.)	350.00
1991	110.00	2522	150.00	3551 (New Code No.)	450.00
1992	80.00			3552 (New Code No.)	400.00
1993	225.00	HEMIC AND LYMPHATIC SYSTEMS		*3611	12.00
1994	280.00	*2631	8.00	*3612	8.00
2006	80.00			3734	70.00
2013	100.00	DIGESTIVE SYSTEM			
2016	140.00	*2701	8.00	URINARY SYSTEM	
2031	160.00	*2705	28.00	*3820	12.00
2032	120.00	2741	25.00	3966	4.50
2041	225.00	192751	B. R.	*3978	20.00
2051	300.00	192761	B. R.	*4031	12.00
2054	B. R.	*2771	8.00	*4033	5.00
2055	300.00	2781	15.00		
2057	300.00	2791	B. R.	MALE GENITAL SYSTEM	
2058	100.00	2801	B. R.	*4101	12.00
2061	15.00	*2815	8.00	*4111	8.00
2063	25.00	*2871	8.00	4132	360.00

4133	450.00	4624	200.00	5143	15.00
4161	25.00	4627	320.00	5146	15.00
*4191	8.00	4631	250.00	5182	400.00
*4192	5.00	4632	150.00	5253	50.00
*4211	20.00	4634	60.00		
4221	15.00	4637	60.00	EYE	
4224	B. R.	4641	10.00	5401	120.00
4227	B. R.	4642	50.00	5402	80.00
*4305	10.00	4644	50.00	5411	125.00
		4646	45.00	5412	175.00
FEMALE GENITAL SYSTEM		4647	45.00	5413	200.00
4401	28.00	4671	80.00	5414	240.00
*4303	10.00	E*4676	12.00	5417	125.00
*4405	10.00	E*4677	12.00	5418	225.00
4411	20.00	4681	175.00	*5437	8.00
*4421	10.00	4683	175.00	*5438	15.00
4423	160.00	4685	175.00	5441	40.00
4424	120.00	4687	175.00	5443	40.00
4425	320.00	4690	175.00	*5445	5.00
4427	15.00	4692	175.00	*5447	10.00
4428	30.00	4694	175.00	5448	12.00
4431	30.00	4696	60.00	5451	125.00
4433	62.00	4701	70.00	5452	175.00
4436	40.00	4711	20.00	5457	50.00
4441	B. R.	*4713	5.00	5461	120.00
4443	80.00	*4720	15.00	*5465	20.00
4445	80.00	4731	40.00	*5466	20.00
4447	80.00	4735	150.00	5471	350.00
4451	20.00	4745	90.00	5472	400.00
4461	40.00			5481	90.00
*4463	15.00	MATERNITY		5491	200.00
*4471	12.00	4801	175.00	5492	200.00
4473	200.00	4802	175.00	5493	120.00
4474	200.00	4803	200.00	5495	120.00
4476	40.00	4804	175.00	5496	16.00
4478	40.00	4805	175.00	5501	320.00
4481	120.00	4807	15.00	5503	350.00
4482	120.00	(By Report on Difficult De-		5504	350.00
4484	100.00	livery)		5505	175.00
4486	100.00	4808	175.00	E5511	60.00
4488	175.00	4809	60.00	E5515	60.00
4491	175.00	4810	75.00	5531	80.00
4493	200.00	4811	180.00	5532	80.00
4494	175.00	4815	60.00	5541	200.00
4495	175.00	4820	75.00	5544	175.00
E4497	160.00	4821 (This fee includes all	150.00	5546	175.00
4501	B. R.	routine laboratory work		5551	120.00
4505	B. R.	performed by the at-		5552	160.00
E4511	12.00	tending physician.)		5553	160.00
4521	30.00	4822	85.00	5554	120.00
E4541	160.00	4823	50.00	5571	175.00
4545	180.00	4824	12.50	5601	80.00
E4551	180.00	4825	12.50	5602	40.00
E4561	160.00	4826	25.00	5611	250.00
E4562 (New Code No.)	100.00	4827	100.00	5616	250.00
4571	120.00	4828	25.00	5622	200.00
4581	75.00	4828 X	15.00	5631	320.00
4583	175.00	4828 V	10.00	5632	160.00
4585	175.00	4840	4.00	5641	200.00
E4591	175.00	4851	50.00	5642	240.00
*4611	10.00	4870	40.00	5643	135.00
4613	225.00	4878	12.00	5646	90.00
4614	200.00	E4881	B. R.	5647	280.00
4617	250.00	NERVOUS SYSTEM		5651	240.00
4621	200.00	5129	20.00	5652	240.00

5653	240.00	5811	200.00	6001	90.00
5662	240.00	5813	200.00	6011	350.00
5664	300.00	5815	200.00	6021	350.00
5667	350.00	*5821	30.00	6031	400.00
5668	300.00	5833	200.00	6032	250.00
5671	40.00	*5835	16.00	6033	240.00
*5691	8.00	*5841	8.00	*6050	10.00
*5692	8.00	*5843	12.00	*6052	10.00
5697	220.00	*5844	6.00		
5698	220.00	5845	40.00		
5701	B. R.				
5702	25.00				
5703	30.00	*5901	8.00		
5712	20.00	*5903	8.00		
5721	B. R.	*5905	8.00		
5723	B. R.	*5911	8.00		
5724	B. R.	5914	25.00		
5725	150.00	5917	85.00		
5726	200.00	5922	85.00		
*5728	20.00	5924	250.00		
*5741	5.00	*5931	8.00		
*5742	8.00	5933	25.00		
*5743	15.00	*5961	8.00		
*5751	20.00	5963	20.00		
*5753	20.00	5971	180.00		
5774	75.00	5975	250.00		
5775	65.00	*5982	20.00		
5776	35.00	5983	40.00		
5777	B. R.	5984	90.00		
5801	40.00	5991	250.00		
5803	30.00	5995 (New Code No.)	250.00		
5804	80.00	5996 (New Code No.)	125.00		

EAR

RADIOTHERAPY

Deep x-ray per treatment	10.00
Radium or x-ray for primary skin neoplasm (benign or malignant) not to exceed	50.00
Large skin lesion requiring multiple ports	B. R.
Radium for deep tumors, interstitial or intracavitary, course, not to exceed	125.00
Radioisotope	B. R.

PATHOLOGICAL EXAMINATIONS

8611	5.00
8736 (New Code No.)	10.00
8751	B. R.
8919 (New Code No.)	15.00
8956	7.50
8957	12.00

*—Asterisk indicates that fee shown is for surgery only

† item—may not be compensable

Have You Heard?

HENRY H. TURNER, M.D., appeared as a member of the faculty for the 10th Annual Postgraduate Assembly of the Endocrine Society which was held at the State University College of Medicine in Syracuse, New York, September 29 to October 3.

Clinical Professor of Medicine at the University of Oklahoma School of Medicine and Chief, Endocrine Clinic, University Hospital, Doctor Turner participated on a panel, the subject of which was Disorders of the Thyroid Gland.

COMANCHE COUNTY MEDICAL SOCIETY will sponsor a Diabetic Detection Drive, November 16 through 22nd. In addition to the drive, the society will sponsor a lay-education program through the local newspapers, radio and TV stations.

RALPH HEINE, M.D., Elk City, was one of seven physicians in the nation to be approved for membership in the American Fracture

Association during the group's recent convention in Oklahoma City.

JOE W. MCCAULEY, M.D., has established offices in the Medical Arts Building in McAlester. A graduate of the University of Oklahoma School of Medicine, Doctor McCauley moved from Malden Air Force Base, Malden, Missouri to McAlester.

Ten Oklahoma physicians were inducted as new Fellows of the American College of Surgeons which met in Chicago recently. They are: WILLIAM S. DANDRIDGE, M.D., Muskogee; GILBERT S. CAMPBELL, M.D., MERLIN K. DUVAL, Jr., M.D., EDWARD R. MUNNELL, M.D., BOB J. RUTLEDGE, M.D. of Oklahoma City, ROBERT L. IMLER, Jr., M.D., EMANUEL N. LUBIN, M.D., JOE L. SPANN, M.D., BYRON W. STEELE, Jr., M.D., and C. THOMAS THOMPSON, M.D., of Tulsa.

Auxiliary News

Auxiliary in Action

The 15th Annual Conference for State Presidents and Presidents-Elect, national officers and chairmen, of the Woman's Auxiliary to the American Medical Association was held in Chicago at the Drake Hotel, October 6-8, 1958. Mrs. Iron H. Nelson, Tulsa, president, and Mrs. Clifford Bassett, Cushing, president-elect, represented Oklahoma.

The national auxiliary office staff and the resources of the American Medical Association headquarters staff were used for the conference, which gave new ideas and exchange of methods concerning all phases of the auxiliary program. "Auxiliaries in Action," the theme of the conference, was portrayed by the state presidents who were assigned to panels or took part in skits or discussion programs.

Films available for use in health education were reviewed. "Helping Hands for Julie," a new film, showed the importance of paramedical careers. It may be used by the auxiliary recruitment chairman in every county to interest young people in careers in the field of medicine and health. A mental health film, "Preface to a Life," was shown as an example of the excellent educational material available from American Medical Association. "The Medicine Man," AMA film, shows the fight against quacks in the food and nutrition field.

Dr. Earnest B. Howard, assistant vice-president, addressed the conference with a round-up of AMA news. He closed the final conference session as moderator of a clinic on auxiliary problems. Dr. F. J. L. Blasingame, executive vice president gave a lantern slide lecture of the AMA reorganization plan. Dr. Gunnar Gunderson, AMA president, spoke on the World Medical Association.

We were impressed by the plans for the remodeling of the AMA headquarters building. Two and one-half million dollars will be spent to make it one of the most modern medical buildings in the world.

The four priority projects for 1958-59 are: American Medical Education Foundation, Recruitment for Paramedical Careers, *Today's Health* magazine and Safety. The Safety program was presented with sleight of hand tricks by Mr. Frank Burroughs, jr., Field Service Director, Citizens Traffic Safety Board of Chicago. Legislation was a lively topic with Mr. C. Joseph Stetler and Mr. Warren Whyte, AMA legal staff, as participants and Mrs. Charles L. Goodhand, National Legislative Chairman, as moderator.

The Civil Defense program on Home Emergency Preparedness, Community Plan for Emergency Action, and Protection from Radioactive Fallout, was attended by Mrs. Neil W. Woodward, Oklahoma City, Civil Defense Southern Region Chairman.

Craig-Ottawa Auxiliary Organized

Ten doctors wives met and served a covered dish dinner when the Craig-Ottawa Medical Society had its monthly meeting, September 17, 1958, at the Wendelken home, Miami, Oklahoma. They organized an auxiliary, elected officers and voted to meet at the same time as the county society.

Mrs. Harry C. Ford, Miami, was elected president and Mrs. Wright Shelton, Miami secretary-treasurer. Others in the new group are: Mrs. Glen Cosby, Mrs. John Highland, Mrs. Charles Letcher, Mrs. H. W. Wendelken, Mrs. Rex Graham, Mrs. David Carson, of Miami. Mrs. James M. McMillan and Mrs. Donald Olson, Vinita, have been members at large, but will now be affiliated with the Craig-Ottawa county auxiliary.

Sponsorship of a Future Medical Careers club in the Miami high school is a major project. The aim of the club is to familiarize the students with the courses needed in preparation for paramedical careers, and the opportunities offered.

The Achievements of Arist

...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only $\frac{2}{3}$ that of prednisone¹... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*²...absence of serious side effects specifically noted.^{1, 2, 3}

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients⁴... 6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).⁵

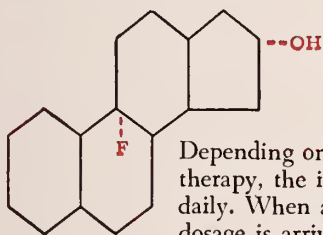
1. Rein, C. R., Fleischmajer, R., and Rosenthal, A. L.: J. A. M. A. 165:1821, (Dec 7) 1957.
2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
4. Freyberg, R. H., Berntsen, C. A., and Hellman, L.: Paper presented at International Congress on Rheumatic Diseases, Toronto, June 25, 1957.
5. Hartung, E. F.: Personal Communication.
6. Schwartz, E.: Personal Communication.
7. Sherwood, A., and Cooke, R. A.: J. Allergy 28:97, 1957.
8. Hellman, L., Zumoff, B., Kretshmer, N., and Kramer, B.: Paper presented at Nephrosis Conference, Bethesda, Md., Oct. 26, 1957.
9. Ibid.: Personal Communication.
10. Barach, A. L.: Personal Communication.
11. Segal, M. S.: Personal Communication.
12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

ARISTOCORT[®]

Triamcinolone LEDERLE

...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.⁶... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.⁷

...in Other Conditions: Two failures, 4 partial remissions and 8 cases with complete disappearance of abnormal chemical findings lead to characterization of ARISTOCORT as possibly the most desirable steroid to date in treatment of the nephrotic syndrome.^{8,9}... Prompt decrease in the cyanosis and dyspnea of pulmonary emphysema and fibrosis, with marked improvement in patients refractory to prednisone.^{10,11,12}... Favorable response reported for 25 of 28 cases of disseminated lupus erythematosus.¹³



Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about $\frac{1}{3}$ in rheumatoid arthritis, by $\frac{1}{3}$ in allergic rhinitis and bronchial asthma, and by $\frac{1}{3}$ to $\frac{1}{2}$ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

ARISTOCORT is available in 2 mg. scored tablets (pink), bottles of 30; and 4 mg. scored tablets (white), bottles of 30 and 100.



LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association November, 1933.

EDITORIAL

RECOMMENDATION FOR RELIEF FOR THE INDIGENT SICK

At the request of Governor Murray a meeting of the Council of the State Medical Association was held at Oklahoma City, October 31, with a representative of the Governor, Mrs. E. McKinnon, State Supervisor, Social Service, under the Federal Emergency Relief Administration, present at the meeting. We were asked to set up a schedule of fees that would be paid by the Federal Emergency Relief Association for the care of the indigent sick in the various counties of the State. The following schedule has been submitted, this schedule to be subject to a 50% reduction:

Visits	\$ 3.00
Office visits	2.00
Obstetrics	25.00
Mileage (per mile)	1.00

Fracture Schedule

Skull	\$ 50.00
Jaw	25.00
Humerus	50.00
Radius	25.00
Ulna	25.00
Radius and Ulna	35.00
Pelvis	50.00
Femur	75.00
Tibia	35.00
Fibula	20.00
Tibia and Fibula	50.00
Fingers	10.00
Toes	10.00
Clavicle	25.00

X-Ray

Hands and Feet	\$ 5.00
Arms and Legs	10.00

Hips	15.00
Shoulders	10.00
Pelvis	15.00
Spine—Ap. and Lat.	25.00
Chest—for ribs	10.00

Operative Fees

Laparotomy	\$100.00
Brain Injuries	100.00
Empyema	50.00
Vaginal Drainage	50.00

Amputations

Major	\$100.00
Minor	25.00

Anaesthesia

Spinal or General	\$ 12.50
Tonsillectomy	25.00

It was further recommended that this service be rendered only to those registered for relief and as long as they remain on the relief rolls. This schedule and arrangements to exist only during the period of the emergency. That the family physician-patient relation be maintained.

When no physician is especially desired the doctors are to be called in rotation from a prepared roster of the members of the component County Medical Societies, using, of course, the most accessible physician in the rural communities.

The above schedule, with 50% reduction, was made with the approval of the Federal Emergency Relief Association representative and will be forwarded immediately to Washington for final approval.

Of course the Council could not pledge the physicians of the State to do work for the above mentioned fees, however, it appears to be the best deal than can be made and we hope that our action will meet with the unanimous endorsement of the profession and that the doctors, as usual, will carry on and do their part to alleviate the suffering of our indigent sick.

EDITORIAL NOTES—PERSONAL AND GENERAL

DR. SAM A. McKEEL, Ada, Councilor Seventh District, Oklahoma State Medical Association, made an official visit to the Seminole County Medical Society in September. He addressed the society on "The Basic Science Medical Law." He was accompanied by Dr. E. A. Canada.



EXECUTIVE DEPARTMENT

Proclamation

WHEREAS, the State of Oklahoma will observe its 51st birthday anniversary on November 16, 1958, having made remarkable progress in development of its agriculture, its mineral resources and its industrial potential; and

WHEREAS, it is fitting that one week be set aside not only to pause and reflect upon the great strides Oklahoma has made industrially, but more important, to examine the needs of various communities and areas for even greater development of present industries and those which will flourish in Oklahoma in the future:

NOW, THEREFORE, I, RAYMOND GARY, Governor of the State of Oklahoma, do proclaim the week of November 16 to November 23 to be OKLAHOMA FOR INDUSTRY WEEK and do call upon every loyal citizen of this sovereign state to join in its observance.

FURTHER, do I call upon all Chambers of Commerce, civic and cultural organizations, schools and churches to emphasize during this week the vital role industry has played and is playing in each community;

FURTHERMORE, I deem it exceedingly appropriate that the thousands of industries, large and small, which have prospered in Oklahoma take the occasion of OKLAHOMA FOR INDUSTRY week to open their doors to fellow Oklahomans in open houses, featuring exhibits of Oklahoma-made products, and special educational programs which will portray, in its true light, the importance of ever greater emphasis on industrial development to the end that all Oklahomans will enjoy higher standards of living; that our young citizens will find ample opportunities for a useful career within the borders of our state and that our communities will be forever diligent in creating a physical and spiritual environment--attractive to industry within and without Oklahoma.

In Witness Whereof, I have hereunto set my hand and caused the Great Seal of the State of Oklahoma to be affixed.



Done at the Capitol, in the City of Oklahoma City, this 9th day of September, in the Year of Our Lord one thousand nine hundred and fifty-eight, and of the State of Oklahoma the fifty-first year.

Conrad Anderson
SECRETARY OF STATE

Raymond Gary
GOVERNOR

PHYSICIAN PLACEMENT

General Practice

Albert Stanley Bailey, Jr., M.D., P.O. Box 1381, Westhampton Beach, L. I., New York, age 28, married, graduated from University of Oklahoma, 1955, presently in military service, will be available May, 1959.

John W. Kennard, M.D., 20 Olson Lane, Fort Rucker, Alabama, age 26, married, graduated from Bowman Gray School of Medicine, 1956, presently in military service, will be available September, 1959.

Robert Emmett Myers, M.D., 872 Ravine Drive, Cleveland 12, Ohio, age 28, married, graduated from University of Arkansas, 1955. Would like to do general practice with emphasis on pediatrics, veteran, will be available September, 1959.

Robert Glenn White, Jr., M.D., 431 Saratoga, San Antonio, Texas, age 26, married, graduated from University of Oklahoma, 1956, presently in military service, will be available August 2, 1959.

John D. Wise, Booneville, Arkansas, age 30, married, graduated from University of Arkansas, 1954, veteran, available immediately.

Gerald C. Zumwalt, M.D., 1701 Avenue P, Del Rio, Texas, age 27, married, graduated from University of Oklahoma, 1956, veteran, will be available July, 1959.

Internal Medicine

Oscar C. Beasley, Jr., M.D., University Hospitals, Iowa City, Iowa, age 30, married, board qualified in internal medicine, graduated from Vanderbilt University School of Medicine, 1952, veteran, will be available July 1, 1959.

William S. Harrison, M.D., 2623 Pittsfield Blvd., Ann Arbor, Michigan, age 31, married, graduated from University of Oklahoma School of Medicine, 1953, veteran, will be available September 1, 1959.

Lacum Tenens

Don Allen Mills, M.D., 3911 Burns Place, S.E., Washington, D.C., age 34, married, veteran, graduated from Georgetown University School of Medicine, 1958, wants to do general practice for two years prior to specialized training. Will be available July 1, 1959.

Pediatrics

Prentiss Edwards Findlay, M.D., 1500 Wakefield Place, New Orleans 22, Louisiana, age 29, married, graduated from Emory University, Atlanta, 1954, non-eligible for military service, will be available July 15, 1959.

Psychiatry

C. Frank Knox, M.D., 1922 Northwood Apartments, Ann Arbor, Michigan, married, age 32, graduated from Washington University, St. Louis, Missouri, 1954, veteran, now completing a four years psychiatric residency, will be available June, 1959.

Surgery

(Name on Request) 32 years old, married, graduated from Tulane, 1952, veteran, board eligible in surgery.

General Surgery

Clyde William Draughon, M.D., McGuire Hospital, Box 27, Richmond, Virginia, age 35, married, graduated from University of Oklahoma School of Medicine, 1954, veteran, will be available July 1, 1959.

Owen Foster Kline, Jr., M.D., 4712 Warrington Drive, Flint, Michigan, married, graduated from University of Colorado, 1954, not eligible for military service at the present time, will be available July 1, 1959.

Tuberculosis

Helen C. Sharp, M.D., 620½ N. Broadway, Pittsburgh, Kansas, single, graduated from University of Kansas, 1928, prefers to do industrial or student health work and is presently available.

BEN HUNTER COOLEY, M.D.
1895-1958

Ben Hunter Cooley, M.D., 63-year-old former Norman physician, died September 20, 1958 in El Paso, Texas.

Doctor Cooley graduated from the University of Oklahoma School of Medicine in 1921. He practiced in Norman until entering the military service. After World War II, he established his practice in El Paso.

A member of the American Medical Association, Doctor Cooley was a former member of the Oklahoma State Medical Association.

WILLIAM S. CRAWFORD, M.D.
1891-1958

William S. Crawford, M.D., 66-year-old retired Tulsa physician, died October 15, 1958 in Tulsa. A native of Winnsboro, South Carolina, Doctor Crawford received his medical degree in 1914 from the Medical College of South Carolina.

Following his graduation, Doctor Crawford went into general practice for two years before joining the Army Medical Corps. After serving in that capacity for ten years, he came to Tulsa where he became medical director for an oil company.

He was a member of the Southern Medical Association, Oklahoma State Medical Association and the American Medical Association.

SEALS L. WHITELY, M.D.
1920-1958

Seals L. Whitely, M.D., 38 year-old Durant physician, died September 26, 1958. Born in Cedartown, Georgia in 1920, Doctor Whitely graduated from the University of Oklahoma School of Medicine in 1949.

Doctor Whitely has been located in Durant since completing his internship and was secretary of his County Medical Society at the time of his death.

Doctor Whitely was a member of the Oklahoma State Medical Association and the American Medical Association.

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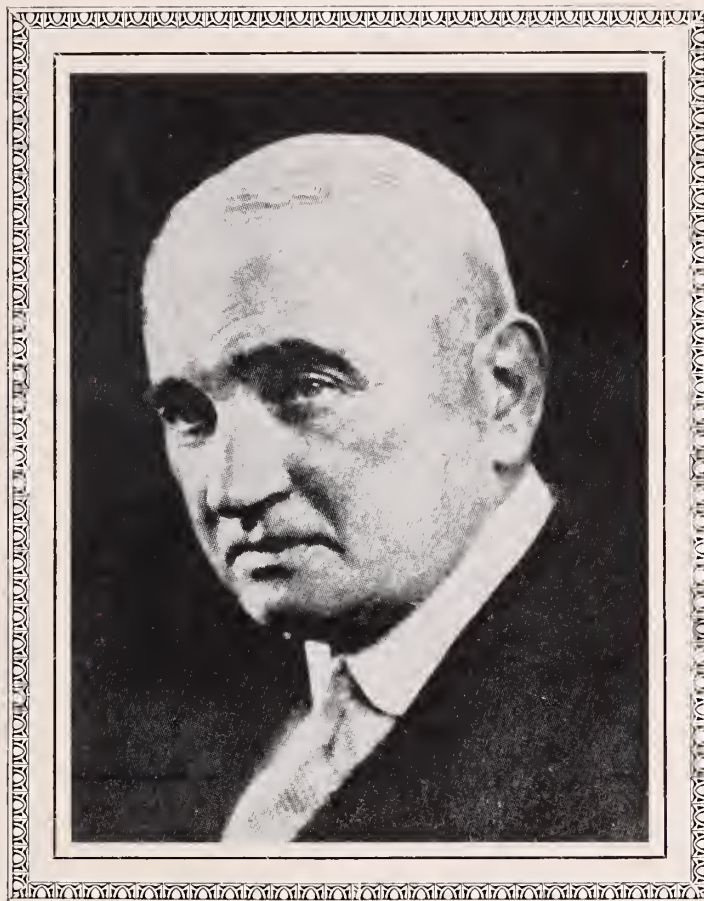
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Miles and His Operation—A Semi-Centenary Celebration

Fifty years ago this month an article appeared in the *Lancet* which was to revolutionize the treatment for cancer of the rectum and sigmoid colon. Its title was "A Method for Performing Abdomino-Perineal Excision for Carcinoma of the Rectum and of the Terminal Portion of the Pelvic Colon."¹ The author was Mr. W. Ernest Miles, of London.

Faget was the first surgeon to extirpate a malignant rectum.² This operation was performed in 1739. Further attempts to treat rectal cancer by surgery languished until the last quarter of the nineteenth century. During the period 1880 to 1910 rectal excision became generally adopted largely

because of the work of German and French surgeons. The tendency of the French was to create a permanent iliac colostomy but the Germans endeavored to preserve the sphincter and which they felt could, as a rule, be retained. The leader of the German view was Kraske, while the Frenchmen Quenu and Hartmann favored the more radical operation.

Miles' early operations were restricted perineal excisions such as were in vogue at that time. He was dismayed when he found that his recurrence rate was a shocking 100% in the 37% of patients he had selected as suitable for operation. He gradually extended the scope of his operation to in-

clude a preliminary colostomy, complete removal of the rectum, anus, lowermost part of the pelvic mesocolon together with the retrorectal glands, section of the bowel at the mid pelvic loop, finally bringing the proximal portion down to form a perineal colostomy. Although this technique was the most extensive that could be carried out perineally, Miles found that his results were still atrocious, recurrences appearing promptly in 55 out of 58 patients who had submitted to extended perineal extirpation.

Miles then began a systematic study of the anatomy of the pelvic and lower intestinal vessels no doubt using the research of de Dietricks and Archibald Leitch for points of departure. His observations, made at the Royal Cancer Hospital, led him to the conclusion that mural spread of rectal cancer was negligible but that there were three principal routes for metastasis:⁵ (1) *The zone of downward spread* to ischio-rectal fat, external sphincter muscle and perianal skin. (2). *The zone of lateral spread* through the levator ani muscles, the coccygei, the pelvic peritoneum and the internal iliac glands. (3). *The zone of upward spread* via the retrorectal, paracolic and aortic glands. As a result of these observations he properly concluded that he had failed to prevent cancer recurrence because tissues of the upward zone of spread, already invaded, lay beyond the reach of any operation carried out solely from below.

Czerny, in 1883, had revived Faget's operation done a hundred and twenty years before. Quenu and Hartmann were early converts to this mode of attack and strongly advocated Czerny's operation. Miles planned his abdomino-perineal resection based upon the same operation but he added certain personal changes which he felt would increase the chance of totally ablating possible tumorspread through the downward and lateral zones. He first performed this operation in 1907. He wrote in January, 1913: "The operation is a severe one. I do not think it should be performed on those over 60 years of age; of 10 such cases all died. With regard to the remainder, of whom there were 36, eight died from the ef-

fects of the operation, four have had recurrences, two died of intercurrent disease, while 22 are today alive and well after periods varying from six months to six years."⁶

Indeed a far cry from his former disastrous experience.

Hartmann was quick to swing to his support. In fact the following remarks by Prof. Hartmann appeared in the *Annals of Surgery* in 1909, a year after Miles' classic report: "It is true that up till now the results of abdominal and perineal amputations of the terminal parts of the intestine have not been very encouraging. We believe, however, that with the actual improvement of the technic they will become better, and that the abdomino-perineal path is to be the path of the future. Personally, we have in these recent days done this abdomino-perineal operation four times—three times bringing down the pelvic colon through the perineum and once the upper end of an iliac incision and total extirpation of the lower end. We have had three cures and one death by hemorrhage, the result of an operative fault which it should be possible to avoid."³

Who was this dogged individual to whom such appalling mortality rates were not a signal for surrender but rather were challenges to seek out some better means toward cure of what was then an almost incurable disease?

William Ernest Miles was born in 1869 on the island of Trinidad, British West Indies. He was the only son of William Miles, J. P., headmaster of the Queen's Royal College of that island. His mother was of Irish descent and some of his forebearers had served in the Peninsula Campaigns with Wellington.

As a matter of course his early education was obtained in the Trinidad school headed by his father. He then attended the medical school at St. Bartholomew's Hospital, London, from which he graduated in 1891. Three years later he qualified as a Fellow of the Royal College of Surgeons at the early age of 25. He then served as demonstrator in anatomy at St. Bart's until, in 1899, he was appointed assistant surgeon to the Royal Cancer Hospital. Four years later he was

promoted to the senior staff there. In his early days he was said to be of an irascible and uncompromising nature. This temperament, much mellowed in later years, has been alleged to be the cause of his otherwise unaccountable failure to be appointed to the staff at St. Bartholomew's. This reputation for a brittle temper is hard to reconcile with the reputation he had as a raconteur and sportsman. He was a boxer, golfer, steeplechase rider and better than average tennis player. Indeed he excelled so well at the later sport that he defeated the reigning tennis champion at tournaments on two occasions!

He was such a devoted follower of horse-racing that he is said not to have missed seeing the Grand National in 50 years. He maintained a box at Ascot in which he loved to entertain his friends and visitors. He once invited a famous Irish surgeon, visiting London, to spend an afternoon at the races with him. The visitor, strangely for an Irishman, had never witnessed a race in his life, but following Sir Ernest's advice, backed five winners in the course of the afternoon. After he had pocketed his winnings from the last race he turned to Miles and remarked, "Why in the world do you bother to labor so hard at surgery as long as there are race courses?" Another story which involved the horse world was that of a famous owner who bade his trainer goodbye, saying that he was about to undergo a big abdominal operation by Sir Ernest Miles. The trainer, who had already been operated on by Sir Ernest, shook hands with his employer and said in the vernacular of the track, "Have no fear, milord, you are already home and dried."

Writing in Miles' obituary, Mr. Michael Smyth recalls this scene of Sir Ernest in his operating room: "To see Miles at work with his assistants was to see British surgery at its best. There was a calm unhurried atmosphere about the theatre, and the leisurely manner in which he went about his work made the whole performance seem at first somewhat slow. This was deceptive, of course, for there was an economy of movement and an effortless ease which only skill

and experience could bring about. There was no delay, no hitch, everything looked simple, and the operation moved on quietly to its close. A glance at the clock showed that it had all taken place in an incredibly short space of time—in fact, as Lord Mynihan remarked, "the clock stood still." And after it all there was the chat about the operation, the cup of tea and the cigarette—all very friendly, for Miles was the most approachable of all men, and was kindness itself to visiting surgeons and students."⁸

It must be remembered that the surgeon of fifty years ago lacked almost all of those adjuncts to patient safety that we accept as a matter of course today. His anesthesia was primitive; he had no antibiotics or sulfonamides; blood transfusion was a greater hazard than hemorrhage and intravenous saline infusions had just been introduced. The surgeon of those days substituted skill, speed and great courage for all such ancillary aids. Sir Ernest Miles was no exception. Originally it required about two hours for him to perform abdomino-perineal resection. By his own extraordinary dexterity and by carefully training his assistants to anticipate his next move he finally was able to complete this formidable procedure within the unbelievable time of thirty minutes and even less! He thus was able to reduce his operative mortality to a very small figure.

His distinguished career was rocked by one affair in which he was charged with malpractice. In 1930 he was sued by a lady who alleged that he had left a pair of artery forceps in her abdomen when he had operated upon her six years before. Technically Miles was entitled to plead immunity under the statute of limitations. While this would have stopped the case before it started, he felt that such a defense would harm his reputation. He therefore waived immunity. He and his attorneys then proved that the forceps had not been left behind by Miles but by a French surgeon who had operated on the plaintiff at another time while she was in France. The jury was convinced and by denying the plaintiff's allegation confirmed Sir Ernest's stand.

Among his other activities he had been a Territorial (National Guard) officer years before August 1914. When World War I was declared he served in France and Belgium. In the autumn of 1917 he worked on 16-hour shifts for month on end at an "advanced abdominal center" just outside bloody Ypres. He saw further combat service as deputy commander of the 58th Division Medical Regiment. At the conclusion of the war he had risen to the post of Consulting Surgeon in the Etaples area of the Pas de Calais.

Honors, including knightship, showered on him after the war years. Included among those from abroad were honorary fellowship of the American College of Surgeons and of the American Proctologic Society. Of all the honors which were bestowed upon him two pleased him most. One was honorary fellowship in the Royal College of Surgeons of Ireland, undoubtedly because of his Irish blood; the other was a tribute to him on his last birthday signed by the members of the staff of St. Mark's Hospital, "wishing him every happiness in his retirement, acknowledging him as a great friend and a trusted leader in their specialty."

After the death of his first wife he married Janet Mary Loxton in 1944. Mrs. Miles, who was well known in surgical circles, was with him when the end came quietly September 24, 1947.

There were no children from either marriage.

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John G. Matt, M.D.

Concerning a Change of Status of The Welfare Department's Medical Care Program*

In its present form the medical care program for recipients of public welfare funds is the result of much debate, intensive arbitration, and continuing deliberation. It is a program which is constantly subjected to scrutiny and trial by every physician who embraces it when providing professional care for an eligible patient.

Each year at the annual meeting of the Oklahoma State Medical Association, the entire program is reviewed and evaluated. If it wins the approval of the state's physicians, the program will stand on its merits and its usefulness. If it fails to obtain such favor in an expressed majority opinion, our official participation will come to an abrupt end. Safeguarding our continued participation requires free exposure and accessibility.

The committee which deals with this program on behalf of the physicians throughout the state concerns itself with expressions of pleasure and displeasure; it seeks out and hears plaintiffs and defendants; it solicits criticism and keeps careful watch over changing trends; it invites suggestions for modification and it is grateful for the devotion and interest of those persons who go to the immense trouble and spend the necessary time in expressing such recommendations they may wish to make.

Currently, as in the past, some of us feel that the problem of physician and hospital reimbursement should be turned over to a non-governmental agency, i.e., an interposed insurance carrier. Specifically it has been recommended that Blue Cross-Blue Shield be invited to play such a role. It is appreciated that this recommendation was made following a sage and detailed evaluation of the desirable and undesirable potentialities of such a change. The sincerity of the proposition is acknowledged.

*This is an editorial that the Journal requested of Doctor Johnson, expressing his committee's views since they were not in agreement with those set out editorially in the September issue.

Following its initial hearing on the recommendation, the Oklahoma State Medical Association's Committee on Medical Care for Recipients of Public Welfare Funds, although making no formal resolution or motion, felt that it would be unwise to extend such an invitation at this time.

Although no one person can speak for the committee as a whole, it is possible to set forth some of the general tenets upon which such a decision was founded. Naturally not every member of the committee shared identical convictions concerning each point. However, each member found sufficient basis in one or more of the seven factors discussed herewith to concur in the majority view.

FIRST: In order to make such participation actuarially feasible, the committee was told that a service type policy would be mandatory. Thus in recommending insurance-carrier participation the committee would be endorsing the entire philosophy of service contracts. Since the State Medical Association has previously expressed itself in this regard, the committee would be extending itself beyond its duly limited objectives in making such a recommendation.

SECOND: To extend an invitation to Blue Cross-Blue Shield, the committee felt, would be to presume that the majority of the members of the Oklahoma State Medical Association would be willing to endorse this underwriter in lieu of other potential bidders. This committee had no information at its disposal indicating such a situation did or did not prevail and furthermore it felt that the determination of such opinion was likewise not the proper business of the committee.

THIRD: Insurance carrier participation in the medical care program would inevitably double, triple or even quadruple the cost of administering the program. It is true that such an increase would be limited to that part of the program which was handled by the insurance carrier but would nevertheless represent an extravagant duplication. The committee felt that every possible saving in administrative cost would be in the best interests of the program and the public.

FOURTH: The committee feels that the physicians of the state presently enjoy their rightful position of authority in the medical care program. As critics have pointed out, it is entirely probable that the program would continue even without support of the Oklahoma State Medical Association. This however, is somewhat beside the point. That point is this: Physician cooperation with the program and its executors is presently subject to direct sanction or disapproval by the Oklahoma State Medical Association. Such a position would be compromised, if not entirely destroyed if matters such as allowances, procedures, and eligibility were to be decided by a relatively invulnerable board of directors primarily subject to the fiscal demands of its company. In short, the committee felt that the practicing physician would have less, not more control over the application and development of the program if an insurance carrier acted as an executor.

FIFTH: The wisdom of advising the Oklahoma State Medical Association to recommend that the federal and state governments enter into a contract with a given insurance company is subject to critical questioning. Presently the State Medical Association is functioning as a volunteer group in that its assistance was solicited by the people of Oklahoma through its legislature. To recommend that the state deal with us through an insurance company would be to accept a less favorable position in saying "let George do it."

SIXTH: The present medical care program limits eligibility to those individuals (in the adult category) who suffer with a "life or sight endangering illness." In spite of its critics, this restriction as it is employed in the program, has proved its wisdom. It leaves the ultimate eligibility of each case squarely in the same hands that hold the ultimate responsibility; the physician who is rendering the care. Such a restriction does not mandate unnecessary utilization of the program, nor does it preclude hospitalization of the patient with an "unlisted" or "not covered" illness or disability. The committee was doubtful that a participating insurance carrier would permit such

an ideal matching of eligibility and responsibility in the utilization of its program. The committee felt that any table of eligibility drawn up for insurance company participation might be broad to the point of extravagance and narrow to the point of inhumanity in any given case.

SEVENTH: The committee felt that one of the strongest points presented in favor of insurance carrier participation was a presumption and not necessarily a fact. This point argued that such an arrangement would take public medicine out of government hands and "put it in the hands of an agency created by the hospitals and doctors to permit the people to budget their funds

for in-hospital medical care." Such an attitude toward "health insurance" companies ignores the fact that they themselves are sometime subject to the impulsive whims and unenlightened prejudices of an insurance commissioner. Thus, to consider such companies as immune to rigid governmental and political control is to expose an incomplete appreciation of the extent of the government's existing controls over the practice of medicine. It was in consideration of these reasons that the Committee on Medical Care for Recipients of Public Welfare Funds advised against insurance company participation in the present medical care program.

Submitted for the committee.—*Mark R. Johnson, M.D., Chairman.*

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Scientific Articles

The Nervous Patient with

THE NERVOUS STOMACH

CHARLES H. BROWN, M.D.*

The nervous patient without organic disease, but with pain and other symptoms resulting from the nervous tension, frequently receives little medical attention and little or no care and understanding. Perhaps too many of us, as doctors, have the attitude: "Don't tell me your troubles. I have troubles of my own." We may be too involved with our own tensions and problems to listen to those of others.

Many times I have heard patients described as "crocks." Some young residents apparently feel that there is little to be learned from patients with functional illness—they have no curiosity as to the meaning of the patient's symptoms. Yet if a doctor is to recognize and to understand functional gastrointestinal conditions, he must have a complete knowledge of organic disease. The symptoms of functional disease can be identical to the symptoms caused by every organic gastrointestinal condition, including ulcer, cancer, gallbladder colic, and ulcerative colitis.

The incidence of nervous tension and the symptoms resulting from it are greater than for all other diseases combined. More than 75 per cent of the patients examined in the Department of Gastroenterology of the Cleveland Clinic come to the Clinic essentially because of their nervous tension. Five hundred consecutive admissions to the Department of Gastroenterology at the Ochsner Clinic were studied^{1a-c} and 74 per cent were found to have functional disease. Bockus and Willard² reported that of 1,000 patients admitted consecutively at the University of

THE AUTHOR

Charles H. Brown, M.D., graduated from Rush Medical College in 1938. He is certified by the American Board of Internal Medicine and the American Board of Gastroenterology. His specialty is Internal Medicine with a subspecialty of Gastroenterology.

A member of the Staff of the Cleveland Clinic and the Cleveland Clinic Hospital since 1948, Doctor Brown is an Associate Professor of the Frank E. Bunts Educational Institute in Cleveland.

Doctor Brown is a member of the American Federation for Clinical Research, American Gastroenterological Association, American Gastroscopic Society, American Association for Study of Liver Diseases and the American College of Physicians.

This paper was presented at the 52nd Annual Meeting of the Oklahoma State Medical Association in Oklahoma City, May, 1958.

Pennsylvania Graduate School of Medicine 46 per cent had "nervous" or irritable colons.

The condition of the nervous patient with the nervous stomach and bowel is frequently unrecognized and poorly treated.³ For this reason, many quacks, faith healers, and "colonic irrigation" clinics thrive. If we, as doctors, gave these patients more attention, listened to them, and cared for them as we should, those involved in the irregular practice of medicine would be forced out of business.

The lack of attention given to functional disease is vividly demonstrated by a textbook⁴ on gastroenterology recently published. Of some 650 pages, a total of three pages is devoted to this problem. I am sure the percentage of patients with functional disease among the author's patients in New York

*From the Department of Gastroenterology, The Cleveland Clinic Foundation and The Frank E. Bunts Educational Institute, Cleveland, Ohio.

is, if anything, higher than the 75 per cent we see in Cleveland.

The drug companies have been quick to realize the importance of emotional disturbance, both in functional and in organic diseases. Congressman Blatnik, in an investigation for the House of Representatives, reported that tranquilizing drugs are incorporated in one-third of the prescriptions written in the United States. The sale of these drugs amounted to 300 million dollars in one year.

As you are aware from leafing through medical journals, there is no limit to the advertising claims of the tranquilizing drugs. They are advertised to be of benefit in cardiac conditions, cardiovascular disease, arthritis and rheumatic disorders, backache, dysmenorrhea, in fact pain from any cause, asthma, obesity, and almost every type of gastrointestinal ailment. Tranquilizers have been combined with analgesic, anticholinergic, and antispasmodic drugs. For example, one advertisement claims to "relieve anxiety that is so costly to the heart." That emotional stress is a serious threat to an already diseased heart is a concept with which we must completely agree.

Another medication is advertised for use when "anxiety and tension erupt in the gastrointestinal tract." Other advertisements for this same drug indicate its use in duodenal ulcer, ulcerative colitis, ileitis, spastic and irritable colon, and other gastrointestinal conditions. Practically all of my patients have anxiety and tension erupting in the gastrointestinal tract. Perhaps they should all receive this medication. Why should they even see a doctor?

Another medication, a combination of a tranquilizer and an anticholinergic drug, "takes care of the man rather than merely his stomach." We do need to take care of the whole man.

The three advertisements cited are only a few examples and were selected only because of the color in the advertisements and the succinct and apt phrases for the indications for the drugs. They show that the pharmaceutical houses are keenly aware of the role of emotional and nervous tension in disease.

These drugs have been of benefit to and are indicated for many patients. However, to prescribe a simple tranquilizer helps the anxiety only temporarily; it does not solve the emotional problem that causes the nervous tension.

Medicine has progressed tremendously in the past 50 years. The average life expectancy has increased 19 years. But, despite the progress in medicine and surgery, I think all of us realize that psychiatry is still descriptive and mechanistic—still in the 19th century. We can discover the cause and mechanism of a neurosis in a patient, but that does not cure the patient. The diagnosis and treatment⁵ of the most common disease we see—nervous tension—are not generally taught in medical schools. Most of our residents come to us with complete ignorance of most functional disease such as the "irritable colon syndrome."⁶ It is not discussed after medical school and it is not reported in medical journals. For example, the signs and symptoms of functional disease are sadly neglected in books on physical diagnosis.

It is important to remember that emotional and nervous tension can cause organic disease. *Newsweek*, March 31, 1958, published a five-page article on Hans Selye and the role of stress in causing heart disease, arthritis, mental disease, and other conditions. The article emphasized that hypertension, in the vast majority of patients, is caused not by an adrenal tumor, renal disease, or organic heart disease, but by nervous tension. Unfortunately, the blood pressure may become so high that a stroke, a heart attack or cardiac failure may result. Emotional stress was the immediate cause of 49 per cent of attacks of coronary occlusion, as reported by Weiss *et al.*,⁷ of Philadelphia. Russeck and Zohman⁸ reported similar findings in a ten-year study of 100 young victims of heart disease, and many similar reports are in the medical literature. Emotional factors are important in cardio-spasm or achalasia, a condition that can result in a markedly dilated esophagus, chronic bronchitis, bronchiectasis, and irreversible pulmonary changes with pulmonary fibrosis.

Emotional and nervous tension in the patient with duodenal ulcer has been described

well by Sullivan and McKell,⁹ and by many others. A typical "ulcer-type" personality has been described. These patients are outwardly calm, but inwardly they are tense, restless, overambitious, and driving. Emotional factors in ulcerative colitis have long been recognized. The patient with this disease has an ambivalent feeling toward the parent of the opposite sex, with both a feeling of rejection and a feeling of need for love. Acute flare-ups of ulcerative colitis frequently are precipitated by emotional crises.

The nervous and emotional bases of anorexia nervosa, with perhaps an unconscious rejection of life and an attempt at a moral suicide by the patient are recognized. The organic changes associated with the disease, however, can be severe. Other conditions such as hives, urticaria, flushing, neurodermatitis, tics, and pruritus ani may have emotional bases.

If nervous tension can cause organic disease, we know that conversely, organic disease can cause emotional disturbance. Anyone who is ill or has pain from organic disease, will be emotionally disturbed. For example, the young executive who has had a heart attack or a stroke fears he may be "put on the shelf."

I. The Abdomen—Nervous and Emotional Tension

Nervous tension causes more disturbance in the abdomen than in any other system. Anxiety and nervous tension usually do "erupt" in the gastrointestinal tract, as we quoted from one of the drug advertisements previously. The abdomen has been called the "sounding board of the emotions," while the colon has been called the "mirror of the mind." The mind gets tight and nervous; the colon gets tight or spastic. You will recall the "battle diarrhea" or "fear diarrhea" that occurs in every war. Officers have frequently considered soldiers who have to stop by the roadside to be slackers, but the diarrhea is a physiological reaction to fear on the part of the individual. Common expressions indicate the relation of emotions to the abdomen: "The experience (sight, smell, etc.) was nauseating," "brave men retched," and "faint at the sight of blood."

Alexander Hamilton Stevens,¹⁰ vice president of the Confederacy, who was always in poor health, stated: "The torture of the body is severe. I had my share of that. Most of the maladies the flesh is heir to, but all of these are slight when compared with the pangs of an offended and wounded spirit. Physical sufferings are not the worse ills I am heir to."

Another historic figure, Josh Billings, stated: "I have finally kum to the konclusion that a good sett of bowells is worth more to a man than enny quantity of brain." I think the medical profession lags behind these authors and also the pharmaceutical houses in recognizing the importance of emotional and nervous factors in disease.

II. Physiologic Mechanisms

Definite physiological mechanisms exist which cause the patient's pain and symptoms. Nervous tension can cause smooth-muscle spasm which, strangely enough, may be concentrated and localized in one small area. It may be present in the upper esophagus, causing a lump in the throat, or globus hystericus; in the lower esophagus, resulting in cardiospasm, or achalasia; or in the stomach with the pylorospasm causing the sensation of a "lump." Generalized, increased peristaltic activity throughout the entire colon can cause diarrhea. Similarly, there can be localized colonic spasm such as is seen in the nervous or irritable bowel syndrome. The chief sites of pain in such patients are at the ileocecal valve, simulating appendicitis; at the hepatic flexure, simulating gallbladder disease; at the splenic flexure, simulating heart disease; and in the sigmoid colon, frequently causing constipation.

The physiology of pain at the splenic flexure of the colon has been studied by Machella, Dworken and Biell.¹¹ They recorded the pressure within the colon at the splenic flexure. Inflation of a balloon at that location caused increased pressure that resulted in pain that frequently the patient thought was cardiac pain. Many of these patients had been incorrectly diagnosed as having cardiac disease, while their true condition was nervous spasm of the bowel. Machella called this the splenic flexure syn-



Figure 1A. Barium enema with x-ray of the filled colon shows what appears to be a filling defect, or evidence of cancer, of the right colon.



Figure 1B. Film taken after evacuation of the barium reveals the same findings as the filled colon.

drome, but this is just one aspect of the nervous, spastic, or irritable colon (Figs. 1-3).

In addition there are vascular changes with both vasoconstriction and vasodilation. The work of Stewart Wolf and Harold Wolff¹² on Tom, who has a gastrostomy through which the mucosa of the stomach can be observed, demonstrated hyperemia, engorgement, erosions, and gastritis associated with emotional crises and emotional states. Grace, Wolf and Wolff¹³ to whom we are greatly indebted for their fundamental studies on the effect of emotions on the gastrointestinal mucosa, showed the same changes in the colonic mucosa in patients who had colostomies and/or ileostomies. We recall the pioneer work published in 1833 of William Beaumont¹⁴ with Alexis St. Martin, who had a gastric fistula. The work of W. B. Cannon^{15, 16} on changes associated with pain, hunger, fear and rage was an important milestone in psychosomatic medicine. His paper,¹⁷ published in 1936, on the role of emotion in disease is equally applicable today.

Nervous tension may cause alteration of

secretions. In the stomach there may be increased acid secretion, present in almost every patient with duodenal ulcer. Other patients may have hyperacidity demonstrable on gastric analysis and ulcer-type symptoms without having an ulcer—the “pseudo-ulcer” or hyperacidity syndrome. The decreased secretion of protective mucus may be the cause of stress, steroid, or cortisone ulcer.¹⁸ The colon normally secretes mucus to help us move our bowels and to act as a lubricant. With nervous tension and irritation there may be increased mucous secretion resulting in so-called “mucous colitis.” Mucous casts of the bowel may be passed, which the patient brings in, convinced they are worms or the lining of the bowel. Mucous colitis is a misnomer, as no colitis is present: there is neither infection nor inflammation. The use of the term causes considerable harm, as the name suggests organic disease where none exists, and can be confused by the patient with true ulcerative colitis.

The increase in secretion noted in the gastrointestinal tract occurs in other organs also. Irritation of the nasal mucosa by chem-



Figure 2A. The next day, after administration of a potent antispasmodic drug, barium enema shows no defect in the filled colon.



Figure 2B. The evacuation film also is normal. These films demonstrate the marked spasm that can cause pain, simulating in this patient gallbladder disease. Emotional and nervous tension were responsible.

icals, infection or nervous tension, may result in increased secretion. In women, nervous tension may cause increased vaginal secretion.

It is obvious that nervous tension and imagination have nothing in common. However, this is the first and most difficult concept for the patient with functional disease to grasp. It is his stumbling block. Therefore, never tell the patient that he imagines his pain, that it is in his mind, is mental, or due to nerves—all synonymous with "imagination" to him. The distress is real and the patient knows he has it. He feels the pain, sees the emesis, the watery stool and the mucus. The second most difficult concept for the patient and also a difficult one for the doctor, if he is an "organicist" with little



Figure 3. Contracture and spasm of the entire descending colon. In contrast to Figure 1, the spasm involves a long segment of bowel, rather than localized spasm. Note also the dilatation of the right colon proximal to the spastic colon. This patient had a long history of irritable colon and constipation. She had been taking irritating laxatives for what she thought were "sluggish bowels." The vast majority of patients with constipation believe the constipation is due to "sluggish bowels," when in actuality it is caused by spasm of the descending and sigmoid colon. Increased peristaltic activity of the entire colon can also result in diarrhea.



Figure 4. The diagnosis of nervous tension and anxiety can be made in this patient simply by observing his fingernails. It is not necessary to be a psychiatrist to observe this manifestation of the patient's nervous tension. It also is unnecessary to know the basic mechanism involved, or to psychoanalyze the patient to determine that he is nervous. Observation of the patient and his behavior is sufficient to make the diagnosis of an anxiety tension state.

or no training in psychology or psychiatry, is the idea that nervous tension can cause the pain. Many times we hear: "There's got to be something there, Doc, it hurts so. I feel it."

III. Diagnosis

Some psychiatrists to whom we refer patients will not make the diagnosis of functional disease until the entire mechanism is uncovered. This is unnecessary as a positive diagnosis can be made without the knowledge of the basic mechanism involved. It is made on the basis of the patient's history, behavior during the interview and examination, and on physical findings.

You need not be a psychiatrist to know that the patient whose fingernails are bitten to the quick is nervous (Fig. 4). In addition, you do not need training in the analytic theory of oral eroticism, or the meaning of persistent thumb-sucking or regression to infantile behavior. From your observation you know that he is nervous.

In making the diagnosis, it is most important to exclude organic disease. Functional disease may obscure organic disease because the multiple complaints may be mis-

leading, because repeated long-standing complaints may confuse the doctor, and because the functional pain may be more severe than the organic pain. One of my colleagues in Detroit cared for a patient who had had severe tension headaches and conversion symptoms all her life. She was very bitter about her tension headaches, and was finally admitted to the hospital because of these symptoms. Roentgenograms of the stomach were negative, but six weeks later she died of undiagnosed carcinoma of the cardia of the stomach. Until the day she died her only complaints were the nervous headaches. This incident illustrates two important facts: (1) a patient with a conversion neurosis can develop cancer; (2) the pain due to nervous tension may be more severe than that due to organic disease.

IV. Classification and Prognosis

I find it useful to attempt a classification of my patients with nervous tension. Anxiety tension may be simple and acute, or may become chronic. It may be precipitated by work, family life, or marital situations. It may be associated with organic disease as in duodenal ulcer, or it may be entirely unassociated. The patient with chronic anxiety can have acute flare-ups.

With anxiety hysteria, the patient is apt to have multiple symptoms in various systems of the body, rather than symptoms limited to one organ. He may bring in lists of complaints, and may not have fixated on any one organ. Such a patient is agitated, because the illness and the attention derived therefrom do not solve his problem.

Conversion hysteria or conversion neurosis occurs more frequently in women. It is a defense mechanism that solves a problem she cannot face, not satisfactorily as far as her family or society go, and not logically, but satisfactorily to the patient. The patient is not agitated. Her illness solves her problem. She agitates her husband and her relatives and you and me. She is the patient who may give you her tale of woe and severe pain with a smile on her face. Frequently a sexual problem exists. The patient may abhor sexual intercourse, may be frigid, and her illness may be an unconscious mechanism to avoid it. The patient, and

even more the spouse who is at his wit's end, may agitate you considerably. They both insist that you "do something!" and feel that you are failing them; consequently, they may even transfer the cause of their difficulties to you!

The patient with a simple anxiety state has an excellent prognosis if treated with understanding, given a thorough examination and reassurance. Such a patient, with abdominal distress caused by an emotional crisis, may fear that she has cancer. This causes a vicious cycle, with more tension, and increased pain.

The patient with a chronic anxiety state has a good prognosis if the life situation causing the anxiety can be altered. The outlook for the patient with anxiety hysteria is poor. His insight is poor, but it can be developed by a patient, understanding physician and it is possible to salvage him.

I believe that the patient with conversion hysteria or conversion neuroses has a hopeless prognosis even with intensive psychotherapy and/or psychoanalysis. I have never known conversion neurosis to be helped by intensive psychotherapy. The patient's pain solves her problem, and is less severe than the problem and situation she would have to face without it. She would be agitated without this defense mechanism.

How do you treat these patients? You harm them as little as possible, avoiding surgery that would simply lead to further surgical procedures. You do *not* give them a diagnosis of organic disease; to do so can cause great harm. I am sure that during the 1930's many conversion neuroses were developed when undulant fever was a favorite diagnosis for patients with vague aches and pains. Some of those patients still have their neuroses. Similarly mucous colitis is another harmful diagnosis.

These patients present a difficult problem (Fig. 5). They can require endless hours, but in turn they do not want to listen or to believe what you tell them. If you refer these patients to their local doctors, the doctors themselves will not appreciate such referrals, as these patients present an impossible situation. Their insight is nil. Their



Figure 5. This drawing suggests how disturbing a patient with a conversion neurosis may be to us. While we may be very anxious to help the patient, we are hampered in our attempts at treatment. Note the 20 complaints in the patient's chart.

conversion mechanism is deep-seated; and invariably time spent with them is worthless.

Fortunately the incidence of true conversion neurosis is very low compared with the great frequency of anxiety states. The patient with a deeply fixated conversion neurosis is rare; the incidence appears higher than it actually is because these patients usually see many doctors. The great majority of patients we see with symptoms due to nervous tension have some type of anxiety state; with proper care, these patients can be helped.

V. Mechanism of Conversion

How does a conversion neurosis develop? The importance of the home life of the child in the subsequent development of anxiety and conversion cannot be overemphasized. The oversympathetic and oversolicitous mother who overprotects her brood may be responsible for developing a conversion reaction in her children. You all are familiar

with the matriarch who never wants or allows her children to grow up; throughout adolescence and adulthood they always remain her "babies"; and pity the poor spouse who dares to interfere!

While overprotection may lead to a conversion reaction, a lack of love and understanding in the home can lead to insecurity and anxiety. Broken marriages and divorces may lead to the same feelings of insecurity, of "not being wanted" in the child. Adults with this neurosis more frequently will have children who develop these reactions than will the better adjusted adults. The daughter of a mother with a conversion reaction who retreats via illness from any intolerable situation may react in a similar manner.

Consequently, the adequate treatment and understanding of the nervous patient is important not only to the patient, but to his children. If we, as doctors, can teach each patient with anxiety to recognize that his symptoms are due to emotional tension and teach him to deal with them in a forthright manner (rather than retreating into his illness, as in conversion), we will have helped his children as well.

Conversion may start as a simple anxiety state with a difficult, unpleasant situation that one wishes to avoid. This may be in the home, at work, or may be a social obligation that one wants to avoid. For example, a man cannot tell his boss: "I just do not want to go to your party." On the basis of simple nervous tension and indecision, a headache, migraine, or abdominal pain may result. The patient uses this illness as an excuse to avoid a commitment; he has genuine pain, although he may exaggerate it further to justify himself. The patient's excuse is to himself as well as to others who sympathize with him for being sick and for missing a good party. This behavior repeated, forms a pattern of avoiding unpleasant situations by illness, and the recurrent symptoms and episodes result in a chronic anxiety state. Dissatisfaction with oneself and ambition disproportionate to one's ability may also cause a chronic anxiety state.

The attacks require diagnosis and treatment to justify the symptoms to the patient,

to his relatives and friends. A diagnosis of organic disease with medication or injections solves the problem temporarily. Surgery may meet his needs for a few months because of the attention of friends and relatives. As the patient recovers, he gets less attention, the same abhorrent life situation recurs, and the cycle is repeated. One such patient we have seen is an 18-year-old girl who during the past seven years has had 11 laparotomies. Her conversion neurosis is now well fixated and her prognosis is hopeless. Understanding treatment and avoidance of the operations might have prevented development of a severe conversion neurosis. Diagnosing and treating functional disease as organic disease leads to fixation and conversion, and is as serious a medical error as is overlooking of organic disease. The most effective treatment of conversion neurosis is the prevention of its development from a simple anxiety state, by the careful attention and understanding treatment of the attending physician.

VI. Symptoms of Functional Disease

The symptoms alone frequently suggest the diagnosis. The symptoms are so many that we can only mention some briefly.

Migraine suggests functional disease. Many patients with migraine have had cholecystectomies because they vomit bile. Needless to say, they continue to have the migraine after operation.

Obesity may be a symptom of nervous tension and some patients will admit they eat when they are upset. The patient depicted in the cartoon (Fig. 6) certainly does not appear nervous, but appearances are deceiving. Weight is a mathematical equation of intake and output, and obesity is not due to glandular deficiency. People overeat and nibble because of tension. Many say, "but I eat like a bird." Others say this obesity is familial. Two overweight brothers in a family that has always been overweight are shown in Figure 7. It is not obesity that runs in the family, but rather eating habits, nervous tension, and eating when upset emotionally. Obesity is a cardinal sign of tension. The obese patient is a nervous patient.



Figure 6. This patient appears happy-go-lucky and does not seem to have a care in the world. In seeing a patient with nervous tension, appearances can be deceiving. This patient is obese because of inward nervous tension that is not apparent on the surface. Overeating and resulting obesity can be very similar to alcoholism; both habits develop because of inadequacy and emotional tension.

You can be suspicious of the patient who "vomits everything he eats," but has no loss of weight. Some complain of a lump in the stomach, of food remaining undigested in the stomach. Such patients do not lose weight, and describe shifting abdominal pain or pain throughout the abdomen.

Patients who bring in long lists of complaints, so-called "multiple symptoms," are nervous patients. They are like someone who goes to the bargain counter trying to have 25 symptoms alleviated for the price of one. The more symptoms the patient presents, the less seriously you can take any one of them (Figs. 8, 9, 10). Bizarre symptoms that are inconsistent with any organic disease, such as pain from head to foot, frequently are given. Any evidence that there is aggravation of distress by emotional crises is diagnostic. Belching, aerophagia, bloating, gas, pain over the apex of the heart

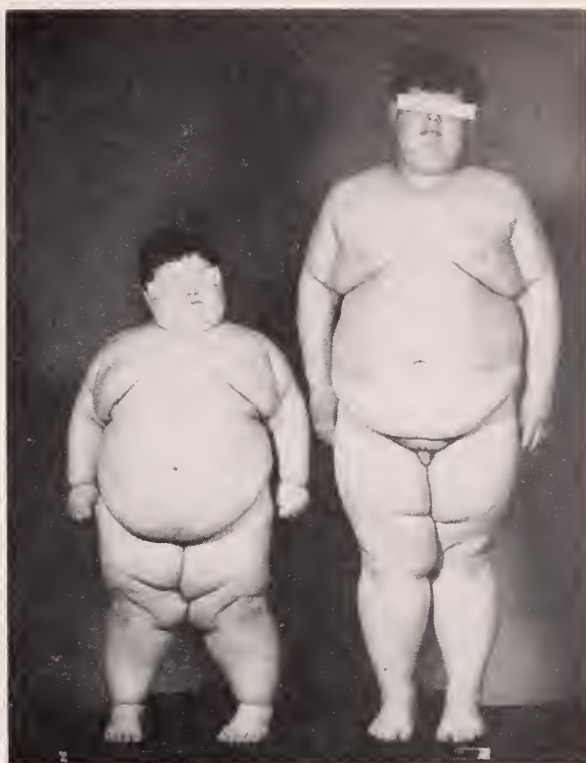
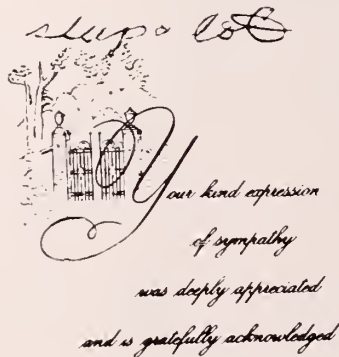


Figure 7. Some overweight patients will say that their whole family is obese, that they have always been overweight. These two brothers, whose parents also were overweight, might lend false support to such an argument. However, it is not obesity that runs in the family, but the same personality traits, emotional tension, and habits of eating when under increased nervous tension.

with gas crowding the heart seldom indicate organic disease. Similarly nonindicative is, relief by belching or passing flatus (Figs. 11, 12). Chronic use of laxatives, relief of distress by bowel movement, and reproduction of distress by barium enema are suggestive of an irritable colon. Recurrence of similar distress six months after operation also indicates a functional disorder. One patient had seven operations and continued to have the same type of pain she had before the first one. Yet each operation was a surgical triumph. She believed each time that she was being miraculously saved and snatched from the grave. The history of many operations, or of taking a large number of medications suggest functional disease (Fig. 13). Agitation is a warning sign. You all have seen the patient who cannot take any medication, who has strange and unusual reactions to any treatment. You

also have seen the patient who is not helped or affected in any way by large doses of any medication. Poor habits involving excess coffee, alcohol and smoking, and insomnia all suggest nervous tension.



1. Legs and arms are weak.
2. Pain in left leg sometimes
3. Pain in chest (sometimes heart gives funny thump sometimes also).
4. Feel ill after eating
5. Feel full as though I have to vomit.
6. Constipated a lot
7. Headache
8. Hands and feet always cold
9. If I elevate my arms or legs, they get hot & feel as if all blood is rushing.
10. Tongue & swallow
11. Hard to breathe & swallow sometimes
12. Pain in rectum sometimes
13. Harder to breathe when I sit up
14. Nose clogged
15. Eyes hurt
16. Stomach pains from laxative
17. Ears feel funny and clogged
18. Harder to breathe when standing up
19. Feel a little dizzy sometimes
20. Feet and hands go to sleep a lot

Figure 8. List of complaints brought in by a 16-year-old girl. It is unusual to develop such a marked conversion at this age, but the patient resembled her mother, who withdrew into illness whenever a difficult situation arose. Note that the complaints are written on a "sympathy card," raising many possibilities from a psychoanalytical viewpoint.

You all see the patient who believes she mystifies all doctors; the patient almost proudly remarks: "No one can diagnose me and no one can help me. I have a strange disease." Some are unable to swallow a small pill, yet can ingest large hunks of meat. There are patients who complain of weak spells and fainting, but actually never pass out. Some complain of tiredness, particularly the "tired mother's" syndrome. They are as tired in the morning after ten hours' sleep as when they went to bed. Repeated blood counts and determinations of basal metabolic rate are normal.

There are patients with shifting complaints. They first complain of pain in the stomach that is relieved by symptomatic management—then develop other symptoms such as cardiac pain, with transference from one system to the other. There are the patients who always have a grave emergency with midnight calls, and demands for immediate hospitalization. Then on further inquiry you find that the symptoms have been present usually not only for many months but for many years. The patient exaggerates all complaints. Pain is terrible, terrific, and horrible. We recently saw a patient with very severe pain and incapacitating symptoms; she did not tolerate any medication. Despite the severity of the pain, she postponed hospitalization for two weeks to keep an appointment with the hairdresser. Then we have the patient who asks "why?"—not one but 20 questions, and for whom an adequate explanation still will evoke the question "why?"

All the above symptoms suggest functional disease.

However, there may be present symptoms that are suggestive of organic disease which should alert you, and act as an alarm.

- 1) Vomiting of food taken five hours previously; hematemesis.
- 2) Pain awakening the patient at night; pain radiating into the back.
- 3) Diarrhea at night.
- 4) Blood in the stool.
- 5) Loss of weight (although it can be functional).

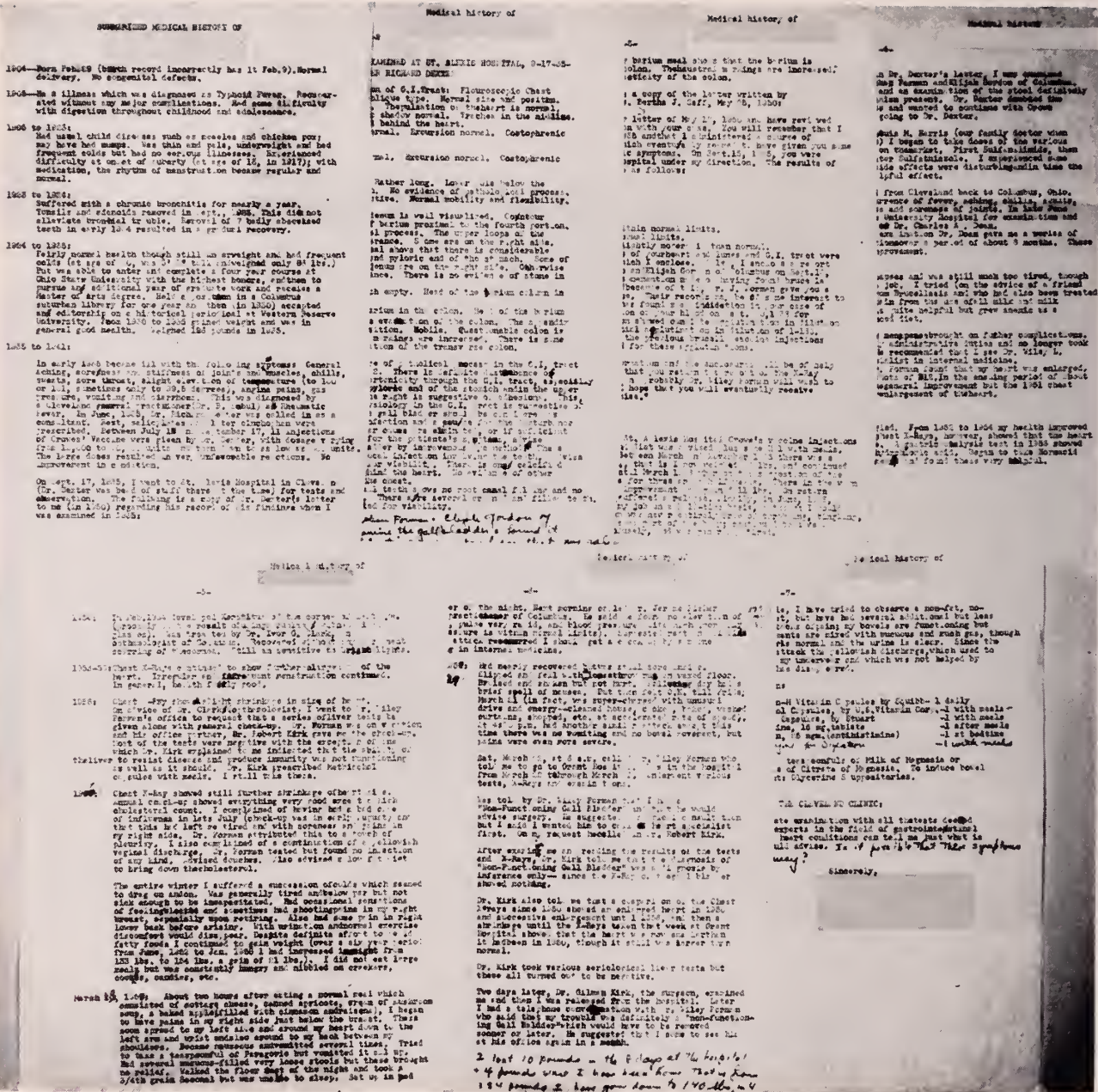


Figure 10. The patient brought in this typed, single-spaced medical history that was seven pages long. She had seen many doctors and has faithfully recorded

Sitting on the edge of the chair anticipating each question, much like a patient with hyperthyroidism.

An oversolicitous spouse or relative.

The wife (Fig. 14) or husband who is present and answers all the questions for the patient.

You are all familiar with the patient (usually one of us beaten, down-trodden males)

the diagnosis and advice of each. A diagnosis of undulant fever had been made in 1935, but the patient has the same complaints in 1958.

who never gets a chance to tell his story.

What else do you need to make a diagnosis?

Some patients "protest too vehemently" and deny all nervous tension and anxiety. Anxiety is a normal reaction; the patient who denies all anxiety is not normal. Such patients frequently deny any home problem and report their spouses as completely ideal,



Figure 11. Flat plate of the abdomen with marked aerophagia. Air fills the stomach and part of the small and large intestine. There is some dilatation of the stomach, but no obstruction was found on barium meal roentgen examination.

considerate, and “perfect.” We know that such a degree of perfection as described does not exist; such protestations are usually a cover-up for some inadequacy the patient wishes to abolish by denying its existence.

Tachycardia may be present with nervous tension.

The blood pressure slightly elevated and the patient with a mild fever. Sighing respiration; patients who gasp for breath; patients who hyperventilate—with reproductions of the symptoms of giddiness, dizziness, and faintness during auscultation of the chest.

Either overmodesty or exhibitionism, with draping of the sheet and pointed (and painted) toes.

Blushing may be a sign of nervous tension as well as dermographism, urticaria, and neurotic excoriations.

“Puddle” sign on the examining table due

to increased axillary sweating, hyperhidrosis and wet palms.

The patient who wears dark glasses inside a building or when it is cloudy—that patient is hiding and withdrawing from you and reality.

The patient who describes severe pain with a smile.

Severe dental caries—the patient frequently is too nervous and afraid to obtain professional dental care.

The patient with extremely overactive gag reflexes.

The patient with extra systoles and an overactive heart in the absence of heart disease and hyperthyroidism.

Examination of the abdomen can show multiple scars from the previous operations; aerophagia with an air-filled stomach. A tender aorta; a patient may hyperreact on



Figure 12. Roentgen examination of the stomach after barium swallow showing multiple filling defects suggestive of a polypoid carcinoma or lymphosarcoma. Roentgen study, with spot films, repeated twice showed similar findings. Gastroscopic examination showed no intrinsic disease, but a bezoar. Without operation, we¹⁹ lavaged a starch bezoar from the stomach. This again is a functional disorder simulating organic disease.

the abdominal examination and be tense all over. A ticklish abdomen seldom indicates organic disease. Kantor reported that in 29 years of practicing gastroenterology he had never seen serious organic disease in a patient with a "ticklish" abdomen.

Overreaction to rectal and proctoscopic examinations can give you insight to the patient.

A normal stool in the rectum despite severe diarrhea tells its own story.

Some patients with neuroses strongly resist any consultation with a psychiatrist. They apparently give the psychiatrist mystic powers of being able to read their minds and see their innermost conflicts. The more a patient resists psychiatric consultation, the more likely deep-seated neurosis is present.

There are also findings familiar to us all on physical examination that suggest organic disease, such as jaundice and enlarged



Figure 14. The oversolicitous spouse, who does not let the patient say anything, gives us insight into the family and home relationship, into the patient's personality, and sometimes into the reasons for his complaints.

liver. You are so familiar with these findings that we will not mention them further. It is the symptoms and findings of functional disease that have been neglected.

VIII. Treatment

What is the role of the physician?

First, the physician can produce conversion by diagnosing disease as organic when it is functional. While the parents and family are most important in causing conversion, the physician can produce conversion by improper treatment. The physician has a definite role to play in preventing the sequence of a simple anxiety state to a chronic anxiety to an anxiety hysteria and finally to a conversion. First, he treats the simple anxiety state correctly, avoiding the diagnosis of organic disease when such disease is absent. He avoids extensive medical programs, drugs, injections, and operations for functional disease. An explanation to the patient of the physiological basis of nervous tension and emotions, i.e. smooth muscle spasm, vasoconstrictor and vasodilator spasm and secretory changes, can be of help. An example can be given to the patient of how nervous tension causes organic disease such as hypertension and ulcer.

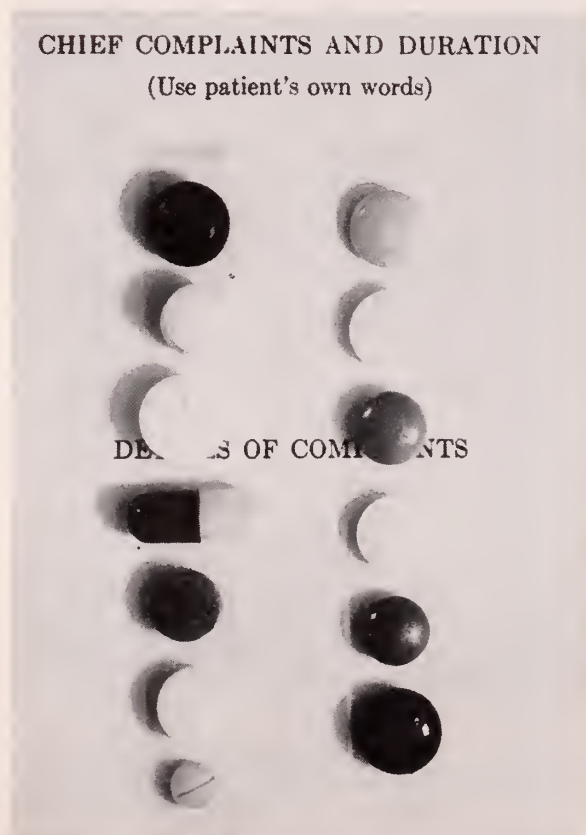


Figure 13. Photograph of 13 medications taken by one patient. The large number of medications, as well as a history of many operations, suggests functional disease.

This he can understand. It is a short step from this to explain how the same nervous tension can cause pain.

Alvarez said, "A few surgeons think by removing a silent fibroid they can cure a woman's sick headaches, or feelings of fatigue, or nervousness or her depression or her backache. There is no operation that will change a sickly Pomeranian into a powerful bulldog." An extensive medical program including injections and many drugs—such as is depicted in Figure 15—can cause conversion. The patient may be confused about his medications, but he *knows* that he is very sick to require all those drugs.

Just as it is unnecessary for us to be psychiatrists to recognize the nervous patient, it is also unnecessary to be psychiatrists to treat these patients. Many patients, and even some doctors, mistakenly believe that a psychiatrist has some "magic wand" he can use to immediately relieve an anxiety, change a patient's personality, or cure a deep-seated neurosis. All of us²¹ can use the same tools as the psychiatrist—listening to the patient, understanding, and common-sense treatment.

In treatment the diagnosis must be made first and the condition of nervous tension causing functional stomach and bowel symptoms must be recognized. Adequate diagnostic studies are necessary, not only to exclude organic disease, but also from a therapeutic standpoint. For example, many of these patients may mistakenly believe they have cancer; adequate examinations that exclude as far as possible any neoplastic disease can be of definite value in treatment. Positive reassurance, after adequate study, may relieve the patient's anxiety and fear that he has some dreadful disease, and can be more helpful than any other measure. Tell the patient of the absence of organic disease, and of the diagnosis of nervous tension and functional disease. When reassured after only a superficial examination, the patient has doubts about the soundness of the diagnosis and advice. When, however, he is reassured after thorough and complete examinations, the patient knows the diagnosis is on a sound basis, that the serious organic disease has been excluded, and accepts such

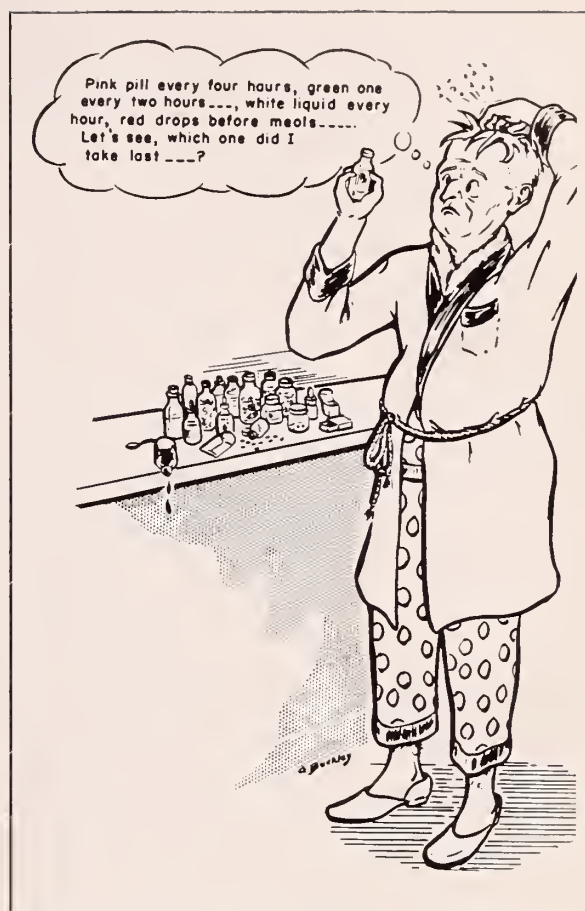


Figure 15. This patient is certainly confused about his 17 different medications and well he might be! However, you can be sure he is convinced that he must be very sick to require all these different medications.

reassurance. Adequate study and examinations are the basic foundations of treatment.

Explain to the patient the lack of any relationship between imagination and his symptoms. Explain the mechanism of nervous tension causing symptoms. Discuss with the patient, the spouse, and relatives, factors in the home which cause tension and the past history such as upbringing and childhood training, work and economic factors. The understanding and co-operation of the family are also helpful in treatment. The relatives and the spouse, when interviewed alone, may help the doctor to gain insight into the patient's problem. Try to help the patient to reconcile home differences.

Improve as many bad habits as you can. Encourage the patient to control use of coffee, alcohol, tobacco and food. A change of work habits may help. Ask him to relax

a few minutes every hour, cut down the rush, and perhaps resign from some clubs. If a patient is on the nightshift, perhaps you can get him to change to the dayshift. Stimulate other interests in the patient. Encourage him to develop hobbies, and to plan vacations (many may not have taken time for vacations). Adequate recreation, rest, and regular exercise are most important. When these suggestions fail, symptomatic treatment, including sedation, tranquilizers, and antispasmodics, is indicated. Such medications should be prescribed with the patient's knowledge that you are treating his nervous tension primarily and not an organic disease.

The time involved in this is considerable. The financial return from the time involved is poor. However, the response of the patient can be most gratifying. You may save a life. You may save the patient much misery and expense in both medications and possible operations. An unhappy, useless life may be made useful and constructive. It is not necessary for us to be psychiatrists to help these patients—the incidence of functional disease is so great that all of us must be able to recognize and to treat it.²⁰ A little understanding, sympathy, patience in listening, and common sense are enough. This is time well spent.

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UROLOGICAL PITFALLS *in General Practice*

EDWIN L. PRIEN, M.D.

It is probably no exaggeration to say that in no other medical specialty is there available such a diverse array of laboratory tests and instrumental techniques of high precision as in the field of urology. This complex diagnostic armamentarium may at times be confusing to the average physician and its use may not be in the best interest of the patient unless handled by one specially trained in the field. This statement is not to be interpreted as a plea for reference of more urological cases to urologists. It is unthinkable that every patient with symptoms referable to the genito-urinary tract should be seen by a specialist. Some types of symptomatology may be adequately handled by the general practitioner himself; others require more or less complete urologic investigation. A knowledge of the significance of symptoms and signs and the use of simple diagnostic procedures available to every medical man should result in improved diagnosis and treatment of urologic conditions by the general physician.

Even in a strictly urologic practice it is not necessary or desirable to do a cystoscop on examination on every patient; a significant number of my own patients escape this procedure. This is particularly true in upper urinary tract conditions in which intravenous urography adequately demonstrates the lesion, or absence of a lesion.

With the introduction of this procedure there became available a diagnostic method which the general practitioner could employ quite as well as the urologist insofar as the technique is concerned. I have just mentioned its value in diagnosis of the upper urinary tract. The technique also has limitations which must be recognized. Failure to correctly evaluate its possibilities has occasionally led to serious errors in diagnosis, particularly when the excretion of the contrast medium is inadequate, or when there

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is a lower urinary tract lesion present. Intravenous urography has serious limitations in diagnosis of lesions at the bladder level. In general it can be said that this technique has turned up innumerable cases of urological disease which might never have come to light had the greater inconvenience of cystoscopy and retrograde urography been necessary. A large proportion of the patients seen by urologists have had previous intravenous urograms which have given a diagnosis or at least shown that something was wrong in the urinary tract.

Let us turn now to a consideration of symptoms and signs as seen in the patient. Except for pain and tenderness over the kidneys and ureters, most of these symptoms and signs are expressions of involvement of the lower urinary tract, comprising the bladder, bladder neck and urethra. The primary lesion may be in the kidney, as for instance, a silent pyonephrotic kidney, but the presenting symptoms may be due to infection which has secondarily irritated the bladder and bladder neck.

The stimulus to empty the bladder frequently when the urine is infected is due to increased irritability of that structure. The bladder is a muscular organ and you will remember that you may cause muscle contraction by various types of stimuli, thermal, electrical, chemical, and this would include inflammatory. As a result of inflammation the muscle has increased tone or partial sustained contraction and it squeezes the contained urine to produce an increase in intravesical pressure. Whether this increased intravesical pressure is due to a considerable accumulation of urine in a normal bladder or to a small amount of urine in an inflamed spastic bladder is immaterial, the result is the same—a desire to void. A small quantity of urine in an inflamed bladder may produce a persistent demand for relief of pressure—which we call urgency.

As the urine passes over the inflamed mucosa of the bladder neck and urethra we experience pain, described as cutting, stinging, burning, et cetera—dysuria. This cystitis may be secondary to a silent reservoir of pus in the kidney—or it may be strictly a simple local bladder infection, or it may be secondary to another lesion in the bladder, as for instance an infected polyp or a bladder stone.

We have just discussed bladder symptoms due to infection. Similar symptoms—urinary frequency, urgency and dysuria—may also be encountered in patients who have an uninfected urine—and such cases are common. In the male we have the middle-aged or elderly man who complains of increased urinary frequency, at first noted only as nocturia. Later this may increase to such an extent as to interfere with his work. In the elderly male we think of an enlarged prostate; in the younger man of 45 or so we think of a fibrous median bar at the bladder neck if there is no infection.

What is the mechanism which produces frequency, urgency and dysuria in this male with a bladder neck obstruction but *no* infection? In the previous case of cystitis, which we have just described, there was infection. Our patient with prostatic obstruction may not be infected but his symptoms

are quite similar. How do we explain this? What is the mechanism? Again, the symptoms are due to increased intravesical pressure. As a result of increasing obstruction at the bladder neck due to the enlargement of the prostate or a median bar, the bladder experiences increasing difficulty in emptying. It is a muscular organ and the muscle fibers have the capacity to enlarge or hypertrophy. As the load increases so does bladder power up to a certain point. The powerful thickened bladder squeezes its contained urine harder, and again, we get increased intravesical pressure—and the symptoms of urinary frequency, nocturia and urgency—without the necessity of infection.

Similar symptoms may occur in the woman without evidence of urinary infection and may be due to inflammation of the bladder neck or to a urethral caruncle. These will be considered later.

How does one proceed when a patient presents himself with bladder symptoms? Does one immediately reach for his prescription pad to order one of the newer—and not inexpensive—antibiotic drugs, assuming that an infection is the cause? I am afraid that this is done sometimes. We have just pointed out that bladder symptoms are not specific—and may not be due to infection. The first thing to do is to examine the urine, of course. In the male it is presumed that a voided specimen is usually not contaminated in the passing. In the female this is not so, external contamination being common. It is amazing how many physicians limit their urinalyses to the determination of reaction, specific gravity, albumin and sugar, paying no attention to the sediment.

The only way to be sure about the question of urinary infection is to look at a urinary sediment under the microscope. Gross turbidity in the urine may be due to urinary salts and not to leucocytes and bacteria, especially if the urine is alkaline. As a fourth year medical student I was once taken to task by an internist of considerable national reputation because I reported pus and no albumin in the urine of a patient. Yet we see this all the time. *One cannot depend*

upon the absence of albumin in the urine to rule out infection of the urinary tract. Yet many insurance companies still assume that the determination of albumin and sugar is all that is indicated in the examination of the urine of an applicant for an insurance policy.

Another common misunderstanding of this type is to assume that a man cannot have pus in his prostate because he has none in his urine. It is possible to have quite marked prostatitis without any sign in the urine if the prostatic ducts are blocked. You will usually have to massage the prostate to discover whether infection is present there.

Suppose we have proved to our satisfaction that the leucocytes found in the urine really came from the bladder—are we ready to go ahead with treatment? Rationally this decision should be “no” but practically it is often “yes” under certain conditions. If the symptoms are mild and suggest simple cystitis, particularly if it is an initial attack, treatment is often undertaken without further diagnostic steps. Such a course should be embarked upon only if it is understood by both doctor and patient that it is something of a gamble. Ordinarily the normal urinary tract does not become infected.

If there are recurrent attacks of urinary infection it is possible that some causal condition exists. Unsuspected anomalies, stones, tumors or obstruction may be present and may be a factor in the production or persistence of urinary infection. Recurrent pyelitis in a child strongly suggests the presence of some congenital anomaly. To treat infection without further investigation when any of these conditions may be present will only result in further trouble for the patient. Recurrent attacks of urinary tract infection should be investigated with care and the patient exposed to a complete urological work-up. Intravenous urography may be adequate to rule out an upper urinary tract lesion in such a case, but will give little information on most cases of bladder pathology.

Under certain special conditions a complete urologic work-up may not be mandatory. For instance, a young woman preg-

nant for the first time, who develops urinary infection can usually be safely treated without further study if facilities for such investigation are not at hand. It is reasonable to suppose that in a case like this that the pregnant uterus produces pressure upon the ureters and may produce urinary stasis and thus predispose to infection. In addition, there is atony of the upper urinary tract on a hormonal basis during pregnancy. Hydro-nephrotic kidneys are normal in pregnancy and this dilatation disappears surprisingly rapidly at delivery.

I have said nothing about culture of the urine thus far. I would like to stress a few points. Don't make a culture of the voided urine of the female; get a catheterized specimen. Also, a culture taken during the course of antibiotic therapy may not show bacterial growth even if organisms are present. Get your culture before you start therapy. To determine if you have effected a cure don't take a culture during therapy or at the end of the course. It may prove little. Wait a week or two to give the organisms a chance to grow out if they are still present. And give an adequate course of therapy, full dosage for ten days at least.

Probably the commonest mistake made by the physician in his management of the treatment of urinary infection is in his failure, in certain cases, to determine if residual urine is present in the bladder after voiding. Presumably the significance of residual urine is not always clearly understood and often underestimated. A bladder which does not empty completely at each voiding is like a bathroom sink which does not empty completely when the plug is pulled out. Stagnant water gets foul, no matter whether it is in the bladder, in the sink or in a pool by the side of the road.

The woman who has normal kidneys by intravenous urography yet has a cystocele. The bladder which never completely empties may not be cleared of urinary tract infection even though she receives one of the potent sulfonamide or antibiotic drugs. All too often no thought is given to the question of residual urine in these cases until persistence of infection demands a more careful reconsideration. Residual urine in the blad-

der must usually be abolished if we are to succeed in permanently sterilizing the urine. Of course this is not always easy to do. Even repair of a cystocele does not always abolish residual urine. Many women go through life with a low grade bladder infection due to cystocele, accepting it as the price of childbirth.

Cystocele, obstructing prostate and stricture of the urethra are the commonest causes of urinary stasis in the bladder. One way of abolishing residual urine temporarily is to place the patient on constant drainage by inlying urethral catheter. Certain atonic bladders, such as the post-partem female bladder with residual urine, may be helped to regain their tone by the use of an inlying catheter for a time. The woman who has difficulty in emptying her bladder after delivery should be catheterized a few times and if trouble persists she should be placed on an inlying urethral catheter for at least four or five days. Certain drugs such as Urecholine, may stimulate the bladder to empty and are well worth a trial.

Since we have been discussing the treatment of urinary infection in the female let us consider conditions in the woman which produce these symptoms *without* infection. Many women have this symptom complex. It occurs oftener in nulliparous women but it is also found in women who have borne children. It is definitely commoner in nervous and neurotic women. The urine is completely normal on examination. If you examine the bladder and urethra with a cystoscope you will find a markedly inflamed trigone and bladder neck; sometimes only the urethra is involved. At times villous proliferations or fronds are seen in the urethra. These are not pre-malignant lesions at all. I am not sure that what I am describing is an entity; at least it is a non-specific inflammatory response to something. Sometimes it is believed due to ovarian dysfunction. This condition is variously described as trigonitis, granular or proliferative urethritis, et cetera. It will not respond to antibiotic or sulfonamide therapy. Urologists treat it by passing sounds to dilate the urethra, instilling silver nitrate or other solutions to the bladder, coagulating the lesions

by light fulguration, and various other maneuvers. None of these methods are highly satisfactory.

Also, a urethral caruncle, projecting from the ventral aspect of the urethral orifice, may produce symptoms and in my experience, is best treated by excision, preferably by electro-coagulation or dessication.

Disorders of the prostate gland tax the diagnostic acumen of a physician frequently. Since we can reach this structure by rectal examination, palpation usually becomes the first diagnostic procedure. It is amazing how much variation there may be in the appraisal of the size and consistency of the gland when the examination is done by those not especially versed in the field. Subjective complaints of discomfort in the perineum or lower back, or of dysuria or discomfort during intercourse may be voiced by patients in whom little can be found on examination. There may be little or no correlation between these subjective complaints of the patient and the findings on examination. Massage of the prostate may produce a secretion full of pus in the man who has no localizing complaint, sexual or otherwise. On the other hand the neurotic or neurasthenic male will complain of discomfort, varying from awareness of his prostate or twinges in the perineum, to classic symptoms, yet palpation and massage of the gland fail to reveal any abnormality. In such a case the doctor may have to fall back on a diagnosis of "congestion" of the prostate.

There seems to be no unanimity of opinion as to treatment of patients with prostatic symptoms but without evidence of prostatic hyperplasia or hypertrophy. These are generally lumped together under the heading of chronic prostatitis. There is no question that carefully done prostatic massage empties many of the tense glands full of pus and provides relief for a period. The normal prostate drains its secretion spontaneously into the urethra. When the ducts in the prostate become occluded with inspissated material such drainage may become impossible, resulting in an overdistended gland; massage may be helpful here. On the other hand the value of massage in the so-called congested prostate is debatable; some of the

benefit may come under the heading of psychotherapy.

Ordinarily the first sign of prostatic hypertrophy is nocturia. As the gland enlarges it produces some degree of bladder neck obstruction which may manifest itself in the early stages only as some diminution in the caliber or force of the urinary stream. The bladder, being essentially a reservoir with a muscular wall, tends to overcome the obstruction by increasing its power. This is accomplished by hypertrophy of the individual muscle fibers as was previously mentioned. This thickening of the muscle fibers is noted as trabeculation at cystoscopy. Being an elastic structure, the hypertrophied bladder squeezes its contained urine more tightly than a normal bladder. The result is that intravesical bladder pressures become higher. Normal bladder pressures are balanced by the sphincter mechanism which prevents the urine from leaking out. The increased intravesical pressure of prostatic hypertrophy is balanced by the sphincter mechanism plus the obstructing prostatic tissue—but the pressures are higher. The result is a hair-trigger mechanism. Since the normal stimulus to void is the result of increased intravesical pressure, there is a desire to urinate frequently, both by day and by night. Eventually, of course, the bladder muscle reaches its limit of muscular development—it cannot hypertrophy any more to overcome the increasing obstruction caused by the enlarging prostate. The bladder then becomes over-distended and flabby and urinary retention occurs. It no longer can produce complete emptying, and, as a result, bladder residual urine develops. This condition can be likened to a boy who grows up with a colt or a calf on the farm. He lifts the animal every day for a while, only to discover eventually that the weight of the animal has increased faster than his muscles have grown—and he can no longer lift the animal off the ground. In the same way the bladder muscle fails to expel the urine when the obstructive lesion becomes marked. The muscle has been overloaded.

The residual urine is the amount which

remains in the bladder after the patient has done his best to empty it. It may vary from a few cc. in the beginning to hundreds of cc. in the advanced or obstructive case. Stagnant water, whether in the poorly emptying bladder or in the pool by the side of the road, gets dirty. And so when we cannot empty our bladders we run the risk of urinary infection. This is a common complication of bladder neck obstruction. With the onset of infection the bladder symptoms, which have heretofore been solely the result of bladder muscle hypertrophy, may be augmented by the added irritation of infection. For a time, the incompetent bladder may again be able to expel its urinary content as the extra irritation of infection stimulates the muscle to greater contractile efforts. However, this is transient and may never be recognized. With continuing infection the decompensated bladder becomes over-distended and bladder tone decreases. Infection invades the bladder wall and attacks the muscle. There is edema and cellular infiltration. Contractile elastic muscle fibers become soggy, inflamed and are replaced by fibrous tissue. The end result is a markedly trabeculated flabby sac instead of an elastic contractile bladder. And if prostatectomy is put off until this stage is reached the result will not be satisfactory. A scarred bladder will not function normally.

A further complication of bladder neck obstruction concerns the upper urinary tract. Hydrostatic pressures in the ureter and renal pelvis are ordinarily much lower than in the bladder. The urine is propelled to the bladder by a peristaltic wave in the ureter. Contraction of the bladder during the emptying phase results in transient relatively high pressure. This pressure is not transmitted up the ureter because of the oblique course of the ureter through the bladder wall. It is not a valve but it has a valve-like action. However, long standing increased intravesical pressure of prostatic obstruction eventually will force this valve mechanism and the increased pressure will be transmitted to the upper urinary tract which cannot tolerate it without damage. Diminished renal function, chronic pyelonephritis, and uremia are possible sequellae.

It becomes important, then, to recognize prostatism in its earlier stages and correct it before irreparable damage is done. And it is also extremely important that a physician does not allow himself to become emotionally involved in this matter. At least two-thirds of us will develop prostatic enlargement which may need operation. It is my observation that as a physician gets older and develops prostatic symptoms and puts off his own operation, he does the same with his patients. My older referring physicians seldom refer me patients who are in the earlier stages; their patients only come to me when they have developed acute retention.

How do we diagnose prostatic obstruction? An accurate evaluation of prostatic obstruction is not always possible by rectal examination alone. The size of the gland by rectal examination may be no indication of the degree of obstruction produced. A five gram median bar (which you cannot feel by rectum) or a sizeable mid lobe, may produce more bladder obstruction than a hundred gram lateral lobe enlargement. It is the contour and the location of the obstructing tissue rather than its bulk which counts. The rectal side of the prostate does not produce bladder obstruction; it is the bladder side which is important. The elderly man with bladder symptoms and little gland by rectal examination may still have prostatic obstruction. The middle-aged man with prostatic symptoms and no enlargement of the prostate on rectal examination may have a very obstructive median bar which can only be discovered by cystoscopy. Of course, ordinarily there is some correlation between the size of the prostate by rectal examination and the degree of obstruction.

The mere fact of slight prostatic enlargement and the presence of mild symptoms, say nocturia of one or two times, is no argument for immediate prostatectomy. On the other hand, delay until acute retention develops, as is often the case, is not defensible either. Increasing and progressive difficulty in urination, inoperable urinary infection, hematuria from varicosities on the bladder aspect of the prostate, and a rising NPN—these are considerations weighing

heavily in favor of operation in the very near future. Lacking hematuria, intolerable symptoms or uremia, the amount of residual urine present in the bladder after voiding becomes the determining factor in deciding for operation or for delay. I believe a residual in excess of 100 cc. is reason for operation, provided the patient is a good surgical risk. The simplest and most direct way of determining the residual is by passage of a small urethral catheter to the bladder to draw off the urine remaining after the patient has attempted to empty his bladder by voiding. Catheterization of the patient with prostatic hypertrophy is not without danger. Infection may be introduced, or, passage of the catheter through the inflamed and congested prostatic urethra, already constricted by the prostate, may produce enough trauma to throw the patient into acute urinary retention. In a patient who is just getting rid of his urine, although probably not very effectively, catheterization may be contra-indicated unless you are willing to run the risk of converting an elective situation into an emergency hospitalization for which, of course, your patient will never thank you.

Another way of determining bladder residual urine is to have an intravenous pyelogram made. After the upper urinary tract is visualized the contrast medium will collect in the bladder to produce a cystogram. If the patient is then asked to empty the bladder, the urine which remains, mixed with contrast medium, may be estimated on an x-ray film taken after micturation. Also, the elevation of the bladder base due to the enlarged prostate and irregularity of the bladder outline will give the radiologist or urologist valuable information concerning the prostate and its local effects on the bladder. You must decide whether such information is worth the cost of the intravenous pyelogram. The urologist may or may not add cystoscopy to his diagnostic sequence. I find cystoscopy indispensable only if I plan to do a transurethral resection of the prostate.

Carcinoma of the prostate usually produces symptoms only after the disease is far advanced and inoperable by operation. The early cases are usually only picked up on

routine physical examination. For this reason the examining finger must have a high index of suspicion when palpating the prostate in men past middle age. If there is some question of a nodule or some induration of the gland it is advisable to seek expert opinion. The urologist should have a somewhat higher "batting average" and probably does, but he is far from being always right in diagnosing prostatic malignancy. The acid phosphatase is only elevated after the carcinoma has invaded beyond the prostatic capsule so that a positive finding usually means an ineradicable cancer. Occasionally there is no phosphatase response to metastatic carcinoma of the prostate so that you can't rely on this test utterly.

To distinguish between the induration of chronic prostatitis and carcinoma is very difficult and often impossible. The use of estrogens as a therapeutic test on the assumption that carcinomatous nodules will disappear under the treatment while inflammatory nodules will persist cannot be condoned. Not all cancerous nodules will respond to estrogen as will be evident to anyone who has tried such therapy on the advanced case of prostatic cancer and obtained no response. Likewise, needle biopsy through the perineum is inconclusive unless malignant tissue is obtained. Indurated prostatic nodules in men past 50 should be biopsied by open surgical exploration and followed by radical perineal prostatectomy if cancer is found. Granted that, at the present time, most cancers of the prostate will not be found until they are ineradicable by surgery, and therefore hormonal therapy, either by estrogen administration or orchiectomy will be indicated, it must be remembered that it is impossible to cure prostatic cancer by hormonal measures which are now available. Statistically, such measures do serve to prolong life for a number of months or even years. But radical perineal prostatectomy offers a cure in early cases. There is an all too common tendency by medical men, and by urologists who do not do perineal surgery, to procrastinate in such early cases. Open biopsy without delay is indicated in all suspiciously indurated prostatic nodules in men past 40.

Regular examination of the prostate gland

should be done in all men after the age of 60. The same patient who goes twice yearly to his dentist to have his teeth checked has not been educated to have his prostate checked regularly when he gets past middle age. The rub here is that you can always get "store teeth" but you cannot replace or completely remove an advanced carcinomatous prostate.

All of us have seen cases of urinary infection due to bladder dysfunction secondary to neuro-syphilis or other systemic diseases. The correct diagnosis is frequently made belatedly. Examination of the knee jerks and pupils routinely often suggests the diagnosis before the Hinton or Wasserman report is received. Many a patient has been put through a long series of bladder washes and pills before it was discovered that the condition was due to neuro-syphilis. The fly in the ointment here is that the treatment may be the same after you discover the diagnosis—more bladder washes. However, an earlier diagnosis would have resulted in a much more guarded prognosis and saved your reputation with the patient. Persistence of bladder symptoms with pus in the urine may be due to tuberculosis, especially if no organisms are found in the urine by routine laboratory tests.

Most doctors know the significance of hematuria. Yet, all too often we find an inoperable cancer of the urinary tract in a patient who had transient hematuria some time before and did not mention it to the doctor because the bleeding stopped. A transient painless hematuria may be the only early sign of a hypernephroma or bladder cancer and should not be disregarded. It must be remembered that all tumors of the urinary tract are malignant or potentially so. All bleeding in the urinary tract must be explained before the matter is dismissed. One exception to this rule may be the condition known as acute hemorrhagic cystitis. The sudden onset of hematuria with symptoms of urinary frequency, urgency and dysuria in a young person who has previously been healthy, together with the finding of pus in the urine, is usually easily diagnosed and will not be confused. Under any other circumstances urography and often cystoscopy will be necessary to make a defi-

nite diagnosis. When blood is found in the urine one should never attempt to explain hematuria by a rationalization. One must get the facts.

Let us now pass to the upper urinary tract. The diagnosis of ureteral stone should occasion no great difficulty if a calcium-containing stone can be visualized by x-ray. On the other hand, the uric acid stone, being non-opaque to x-ray, may give a lot of trouble. If a uric acid stone is suspected, an examination of the urine may be helpful. In uric acid stone the urine is usually very acid unless infection has ensued. Furthermore, if uninfected acid urine from a case of suspected uric acid stone is set aside to cool in the refrigerator a heavy precipitate of the classical brick red crystals of uric acid may help to clinch the diagnosis.

In case of obscure ureteral colic when stone, acute infection and obstruction can be ruled out, it is to be remembered that in the male the lower ureter lies adjacent to the seminal vesicles so that infection in these latter structures may produce symptoms of ureteritis.

I almost hesitate to discuss the differential diagnosis of acute appendicitis and ureteral calculus because there is rarely an excuse for removing an appendix when the correct diagnosis is ureteral stone. Frequently, failure of appendectomy to cure the pain will focus attention on the ureteral stone to the chagrin of the surgeon and the detriment of his reputation. The differential diagnosis depends mostly on signs rather than symptoms. The finding of blood in the urine should point to stone although it may be absent when stone is present. It is possible for red cells to be found in the urine if a long inflamed appendix lies against the ureter; pus should also be present in this case. However, very few mistakes will be made if appendectomy is delayed in such cases until pyelograms are available. X-ray evidence of a calcification in the course of the right ureter is not conclusive evidence for stone unless the contrast medium of intravenous urography demonstrates that the calcification is in the ureter or a ureteral catheter passed through a cystoscope clinches the matter.

Much less reliance is to be placed on symptoms and signs of urologic disease at the kidney level. That organ is relatively inaccessible to exact diagnosis except through the medium of pyelography. If retrograde urography is coupled with cystoscopy it is to be expected that the cystoscopist will view the urograms and make his own diagnosis.

I cannot help emphasizing a point in the differential diagnosis between renal cyst and tumor. A smooth filling defect with a rounded or curving edge is sometimes interpreted as "probable cyst" or "cyst." Yet, time and again exploration of the kidney has shown these "probable cysts" to be renal tumor. Furthermore, an occasional cyst is found to have a tumor within it. The only safe procedure is to explore all cases in which a filling defect in the kidney is interpreted as "cyst." Unhappily, sometimes this differential diagnosis is difficult even when the surgeon has the kidney in his hand at the operating table, particularly when the filling defect is deep within the kidney.

Intravenous urography is of particular value in chronic pyelonephritis complicated by some mild degree of renal insufficiency. This is true only if there is enough renal function to excrete the contrast medium in sufficient concentration to produce films of diagnostic value. It is to be remembered that we have about four times as much renal tissue as is necessary to carry on the normal excretory load of the body. This is the renal reserve. Until more than $\frac{3}{4}$ of this capacity is destroyed the nitrogenous waste will continue to be excreted and the NPN and the BUN will remain normal. One good kidney, or even less, will suffice to keep these values in the normal range. So that it is possible to have a non-functioning kidney and normal NPN levels. Therefore, do not conclude that a normal NPN means normal renal function.

I have tried to interpret some of the urologic signs and symptoms which I believe you may encounter in your daily medical practice. Though I am a specialist in this field, I have tried to view it through the eyes of the general practitioner. If I have succeeded, even in small measure, I shall be happy.

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HYPNOTHERAPY

in General Practice

A. V. CALDWELL, M.D.

Hypnosis in medical practice, while by no means new, is now enjoying a period of resurgence. In keeping with our scientific approach to the practice of medicine, it is necessary to define hypnosis in current conceptual terminology. This should be done keeping in mind that a definition is a working concept and is not necessarily an expression of absolute truth. In harmony with this idea, hypnosis may be defined as "A basic state of consciousness which may be spontaneous or auto or hetero-induced; and in which state of consciousness a person's psycho-biological functions may be influenced towards a desired end."

Hypnosis is characterized by an indrawing of consciousness in which state suggestibility and selective awareness are heightened. In addition, there appears to be a lowering of the threshold of the subconscious and superconscious mind, with a fascilated access to deep-seated memories, habit patterns and emotional complexes on the one hand, and extra-sensory perceptions on the other. On the physiological level, the functions controlled by the autonomic and spinal nervous systems can be controlled to a surprising degree. This control extends to the alterations of sensory thresholds as well.

The hypnotic state of consciousness varies in depths from the light superficial hypnoidal state down to the state of suspended animation. The former state is an almost universally spontaneous manifestation best seen in day-dreaming, so-called absent mindedness, and in absorption in a book, movie or conversation. This state of hypnosis can be induced readily in all normal individuals. Deeper states of spontaneous hypnosis can be found in auto drivers as road hypnosis, as waking dreams, hysteria, somnambulism,

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cataplexy and catatonia. These states can be induced readily in about 25 per cent of subjects at random, and possibly up to 75 per cent with training. The deepest hypnotic states which are spontaneously seen are syncope, stupor, coma and suspended animation. This latter state is apparently very similar to hibernation in certain species of mammals, though it is rather rare in humans. This state may be induced only by specially trained operators and then not without risk to the patient. However, this state of hypnosis offers many experimental possibilities in medicine.

In general, phenomena elicited in the hypnotic state are fairly constant for certain levels but frequently there is much variation. This fact causes much difficulty in attempting to evaluate depth of hypnosis in subjects. One of the reasons for this variation arises out of the differences in the constitutional make-up and development of subjects. Thus, of two subjects who are at the same hypnotic level, one may manifest amazing hyperamnesia, positive hallucinations and even extra-sensory perception, while the other subject may manifest only physiologic responses such as catatonia and anesthesia. This lack of uniformity has led to much criticism and discrediting of hypnosis as a useful phenomena. Furthermore,

where hypnosis is hetero-induced we then have a second variable factor, namely the operator. The operator assumes an interpersonal relationship with the subject which affects the results in proportion to the operator's knowledge, skill, confidence and rapport established. However, the complexity of a phenomena does not necessarily interfere with its practical application.

Induced hypnosis has been used since time immemorial as a prominent feature of religious and healing rituals. However, hypnosis did not come into prominence in modern history until 1777 when Anton Mesmer, the friend of Hayden and Mozart, and a doctor of medicine, cured a case of hysterical blindness in a young pianist by using "animal magnetism," later known as mesmerism and currently as hypnotism. James Braid, a Manchester physician-surgeon, described the phenomena of hypnotism as we understand it today. The word was coined from the Greek word for "sleep." Esdaile, the student of Elliotson, made great contributions toward hypnotic anesthesia. To Bramwell, we owe a debt for his classic of over fifty years ago titled "Hypnotism: Its History, Practice and Theory." He in turn was greatly indebted to the great Liebeault and Bernheim. Thus the history of hypnosis includes the names of great physicians who stubbornly endured ridicule and personal loss in order to explore and expand the horizons of therapeutics in medicine. Suffice it to say that whereas the theory and techniques were varied and uncertain, the results were impressive enough to encourage persistence in the use and application of hypnosis therapeutically.

In the physician-patient relationship, the induction of the hypnoidal state is quite useful, for it is a state of consciousness which tends to be anxiety free and accompanied by a certain degree of relaxation. In the office interview it is desirable to ascertain the patient's fears and anxieties in relation to the office visit and physical examination itself. These fears can be surprisingly removed by the establishment of rapport as quickly as possible followed by simple, oral verbalizations of comfort and relaxation. This technique indraws the patient's consciousness from the surroundings and lays

the groundwork for continuing depth into the hypnoidal state for the actual physical examination. A tense female patient about to have a pelvic examination can be relaxed in a few seconds by confident and determined use of any indirect oral induction technique. The threshold of pain is definitely raised by the simplest of induction techniques. Thus any medical situation involving painful or strange procedures can be prevented from causing anxiety by inducing the hypnoidal state, which in turn may be used as a stepping stone into deeper hypnosis for use as a therapeutic tool.

Hypnosis as a supportive therapeutic tool requires more skill and ingenuity than for previously discussed techniques. Medical situations in which hypnosis may play a part in the therapeutic regime are peptic ulcers, thyroid disease, ulcerative colitis, hypertension, diabetes, asthma, allergies, dermatoses, menopause, in fact any disease which is prominently psycho-somatic. These afflictions can be helped by induction into light or medium states of hypnosis at which time direct symptom removal is attempted and more important, a basic change in the patient's attitude is suggested. It may be found that immediate response is not forthcoming, but even after only two or three attempts definite changes may be seen taking place months later; much like the sprouting of a seed long after its being planted. The management of many diseases or long standing by any method of therapy is hampered by impatient and shortsightedness not only of the patient but of the physician as well. The gratifying quick results often achieved by hypnosis should not blind us to the delayed but more often lasting results.

Hypnosis in surgery is primarily related to a decrease in post-operative morbidity and is closely linked to the use of hypnosis pre-operatively and during anesthesia, at which time post-hypnotic suggestions for quick ambulation, painless surgical site, increased peristalsis and normal physiological functions in general are given. An interesting and somewhat sobering fact which has been found out with hypnotic techniques is that many patients, if not all, have subconscious awareness even in deep states of chemical anesthesia. They are able to recall

under hypnosis details of conversation and activities transpiring in the operating room during their operation. Though this memory is not conscious, undoubtedly the subconscious knowledge affects the patients' psycho-biologic make-up and will be reflected in their post-operative recovery and their subsequent attitude toward all persons involved. The writer has been informed of several such situations by Doctor Cheek, OB-Gyn specialist from California who is currently gathering data on this aspect of hypnosis. The increased morbidity of cancer patients undergoing operation during which unfavorable prognoses were discussed by the surgeons has been clearly established in selected cases.

In the field of anesthesia the skillful use of hypnotic induction pays very big dividends in smoother and safer anesthesia. The special field of narco-hypnosis comes under the anesthetist's province. There is an ideal point of hypnotic consciousness during chemical induction where well placed suggestions facilitate anesthesia by counteracting anxiety. In children, the use of hypnosis preoperatively to establish rapport can make the giving of an anesthetic much more pleasant and with decidedly lesser amounts of anesthetic needed. As the subject awakens from anesthesia there is again an opportunity for post-hypnotic suggestion directed towards the reduction of post-operative morbidity.

Much has been written about hypnosis in obstetrics. It is in this field that such gratifying results are obtained for the reason that patient motivation is very high and there is usually ample time for conditioning the subject. The anxiety ridding hypnoidal state can be achieved in a matter of minutes during labor even though there has been no previous conditioning prenatally. The patient can be changed from an anxious or loudly moaning subject to a quiet, co-operative patient sleeping between contractions. Of course the usual analgesics and anesthetics must be administered. The deeper states of hypnosis for the development of anesthesia are not so easily achieved, and usually require considerable prenatal training. However a solution to the time consuming element is the use of group condi-

tioning which also increases patient motivation. When hypnotic anesthesia is not achieved the operator need not feel that the effort has been a failure but rather that the ideal state was not achieved. We find that any therapeutic method seldom achieves unvarying results.

A special application of hypnosis in obstetrics is the patient with intractable nausea and vomiting associated with pregnancy. The writer has seen patients who have been given all of the usual preparations orally and parenterally without results, who upon one hypnotic induction have ceased vomiting immediately for the remainder of the pregnancy. There is hereby no intention to imply that all cases of nausea and vomiting of pregnancy will respond likewise, due to factors already discussed.

Finally, in emergency situations, patients are particularly responsive to hypnosis again because of high motivation. Severe, impending shock can be avoided or lessened under hypnosis due to anxiety reduction and the induction of variable degrees of anesthesia. Severe burn cases have recovered dramatically due in part to a sense of well being with increased appetite due to hypnotic suggestion. Whenever emergency use of intravenous medications is indicated the use of simple induction techniques can greatly potentiate the therapeutic effects. This method is particularly adapted to the beginner because the operator has faith in the medication and the subject is obviously aware of the medicine's effect as predicted by the operator. Thus the rapport established is very conducive to depth in hypnosis if the operator should so desire.

Now we shall briefly consider the role of hypnosis as a primary therapeutic tool. This role of hypnosis is primarily for the physician who is psychiatrically oriented, which of course should include all physicians. The most gratifying results are obtained in children for their psychiatric problems are relatively early and amenable to resolution. In addition, children between the ages of six through 12 are particularly good hypnotic subjects. Gordon Ambrose, in his book "Hypnosis in Children," classifies children's psychiatric disorders as tension-conduct type

in which he includes the anxiety type and the delinquent; the tension-spasm type such as those with enuresis, asthma, epilepsy, stammering; and finally the tension-action type such as those with tics and obnoxious habits like nail-biting or thumb sucking. Although in some instances there is marked improvement following hypnotic induction without specific psycho-therapy, it is obvious that a knowledge of psycho-dynamics is necessary for the most effective use of hypnosis as a primary therapeutic tool.

In adults the problem is considerably more difficult though patience and perseverance will yield results. The neuroses are usually well fixed and of long standing in adults and frequently associated with a strong constitutional tendency. In these cases the physician should be content with partial results and compromises. However, many times it is these patients who are most thankful for they intuitively realize they cannot lift themselves by their own bootstraps and are dependent on outside help. The wise practitioner will also develop the ability to recognize the pre-psychotic and the psychotic and refer them to a competent psychiatrist without further delay. On the other hand there are numerous cases that legitimately belong in the province of the general practitioner and it is this group characterized by projected and free floating anxieties that can be helped by hypnotherapy.

Indeed, the limitations of hypnotherapy are inherent only in the operator, the subject and the environment. As stated before, there are serious limitations in the operator

insofar as his experience is not sufficient for him to have faith and skill enough to cause deep enough induction in the subject to reach therapeutic levels. Furthermore, after having reached the necessary level, the operator may lack the ingenuity or knowledge to properly utilize the state. Patient limitations are based on severe blocks and repressions or pre-psychotic states. Subjects may also have considerable hostility or aversion to the hypnotic phenomena or to the operator. Of course the malingerer or the patient with strong secondary gains make impossible subjects. As for the psychopath, wise is the physician that gives them wide berth. Situational limitations also interfere greatly, not the least of which is the stigma attached to this form of therapy and the unfavorable atmosphere in the presence of other people who are ignorant or unsympathetic. There is also the situation where hypnosis should not be done without the presence of a third party, preferably a nurse or aide. Distractions in general are a limiting factor but diminished in importance in inverse proportion to the skill and experience of the operator.

In summary then, if the impression has been given that there is no field of medicine where hypnosis is not valuable as a basic approach to physician-patient relationship and further, that hypnosis is a potent, yet safe tool supplementing practically all of the therapeutic armamentarium, then this article has accomplished what the writer intended.

Security Bank Building, Lawton, Oklahoma

ALIEN, *n.* An American sovereign in his probationary state.

From the Devil's Dictionary by Ambrose

Bierce — Sagamore Press, Inc.



PULMONARY HYPERTENSION, *A Summary*

LOYAL L. CONRAD, M.D. and T. EDWARD CUDDY, M.D.

Introduction

Increased resistance to pulmonary blood flow is a common yet serious complication of many forms of heart disease, both congenital and acquired. Its presence may modify and render obscure the original features of the primary illness; its henchman, right heart failure, meanwhile readies the coup de grâce. The distinction between "pulmonary hypertension" and "increased pulmonary vascular resistance" must be kept clear. Elevated pulmonary arterial pressures may exist as a manifestation of increased pulmonary vascular resistance but they may also be found under circumstances where pulmonary vascular resistance is normal. (See "Pressure-Flow Relationships," below.)

Clinical Manifestations

The appearance of right heart failure as evidenced by venous distention, enlargement of the liver, edema, and ascites, should always alert the observer to the possible presence of increased resistance to pulmonary blood flow. More direct signs may then be looked for. The pulmonary portion of the second sound is accentuated and closely split because of pulmonary arterial diastolic hypertension. There may be a systolic click immediately following the first heart sound and a short ejection murmur may be heard over the tricuspid valve. A pulmonary systolic ejection murmur is less frequently audible. Right ventricular hypertrophy is

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detected by the presence of a left parasternal lift. At times pulmonary valve closure may be felt. As the right ventricle hypertrophies it offers an increased resistance to diastolic filling and right atrial hypertrophy develops. Atrial contractions may become so forceful as to cause the appearance of a loud presystolic sound and establish the presence of a three-sound cycle, a right atrial gallop rhythm. The "a" wave of the jugular pulse becomes conspicuous. As a result of the increased resistance to pulmonary blood flow cardiac output is fixed and will not increase upon exercise. Thus, easy fatigue and tired-



Figure 1. Primary pulmonary hypertension. PA chest film shows moderate cardiac enlargement, prominence of the right ventricular outflow tract and exaggerated hilar vascular shadows. The peripheral lung fields show a decrease in vascularity. P.H., a housewife, age 42, complained of easy fatigue of one year's duration, and of right upper abdominal tenderness for four months. A left parasternal lift, accentuated pulmonary valve sound, and a systolic murmur of grade 1 intensity at the apex were present. The liver was enlarged and tender. Edema and cyanosis were absent. A conspicuous jugular venous pulse was seen. (Chest x-ray was taken by Doctor Allen E. Greer.)

ness on exertion are the commonest subjective manifestations. Effort syncope is frequently observed. At times patients will note pain in the chest precipitated by exertion and relieved by rest, with a variable response to the administration of nitroglycerin. The origin of this pain is obscure but it is possibly related to stretching of the main pulmonary artery and its branches as they dilate with the increased influx of blood following exercise.

Chest x-ray findings are usually distinctive. Along with enlargement of the cardiac silhouette and toeing up of the apex and an increased convexity to the right border of the heart there is prominence of the right ventricular outflow tract and the hilar vas-

cular shadows due to dilatation of the major branches of the pulmonary artery. The peripheral lung fields are of increased radio-translucency due to attenuation and obliteration of the smaller arterial branches. Decreased vascularity of the peripheral lung fields offers a distinct contrast to the prominent hilar vascular shadows.

The electrocardiogram shows features common to all of those disorders presenting obstruction to pulmonary blood inflow and right ventricular outflow. Less characteristic changes are found when they are superimposed on changes ascribable to the pre-existent lesion. The mean QRS axis is usually forward and to the right and a large, broad R-wave with a late intrinsicoid deflection is inscribed in leads from the right side of the precordium and right chest. Some of the features of right bundle branch block may be present, but usually the main features of the electrocardiogram are those of right ventricular hypertrophy rather than those of right bundle branch block. However, atypical forms of right bundle branch block are commonly seen in cases of mitral stenosis with increased resistance to pulmonary blood flow and in cases of increased pulmonary vascular resistance secondary to chronic lung disease. In addition, the electrocardiographic diagnosis of right atrial hypertrophy may be suggested by the presence of a tall, spiked P deflection in the standard limb leads or in the right precordial leads.

The Factors, The Pulmonary Circuit

Nearly one-fourth of the circulating blood volume at any instant is contained in the pulmonary vessels and of this volume about 60 cc. are contained in the pulmonary capillaries themselves yet little factual data on the regulation of flow and pressures in the pulmonary vascular bed are available. It seems reasonable to assume that because the peripheral pulmonary arteriole is richly endowed with nerve endings and has smooth muscle elements in its walls that these smaller vessels are capable of active vasomotion and participation in the regulation of pulmonary pressures and flow. As yet those factors which control and modify their activity have not been defined. In addition to the anatomic inaccessibility of the smaller

vessels for study many time-honored physiologic methods are too gross to detect small changes in function and, all too frequently, changes in other parameters (such as cardiac output) render the interpretation of data obtained by these methods impossible. The central nervous system apparently exerts some control on pulmonary reflexes principally through the pathway of the vagus nerve and possibly through the sympathetic autonomic system, but again the mechanisms are little understood. Pressure receptors in the pulmonary venous system and left atrium must in some fashion exert some control over pulmonary vasomotion, yet their role in the control of pulmonary pressures and flow is not clear. It is possible that direct pulmonary venous arteriolar reflexes exist, yet their presence has not been clearly demonstrated. It also seems possible that chemoreceptors in the pulmonary circuit might alter the reflex activity of the pulmonary arteriole. Even though it is well known that decreased oxygen tension can cause a rise in pulmonary arterial pressures, the mechanism remains obscure. When anatomic changes such as intimal hyperplasia and medial hypertrophy are present in the pulmonary arteriole secondary to disease so that structural obstruction to flow as well as alterations in reflex activity may be present, our ignorance is compounded.

Pressure Flow Relationships

The flow equation $F = P/R$ (where F = flow or cardiac output, P = pressure gradient over the segment of the vascular bed being measured, and R = the resistance in that vascular bed) tells us that pulmonary blood flow may be augmented without a change in pulmonary vascular resistance, even though pressures in the pulmonary circuit may rise and pulmonary hypertension is present. This situation is encountered frequently in congenital cardiac lesions with generous left to right shunts. This type of pulmonary hypertension has been called "hyperkinetic" and is related to large volumes of flow. At other times, pulmonary vascular resistance may be greatly increased for any given level of flow. Here the increased resistance to flow determines the presence of right heart failure as well as the direction of shunts. In contrast, when

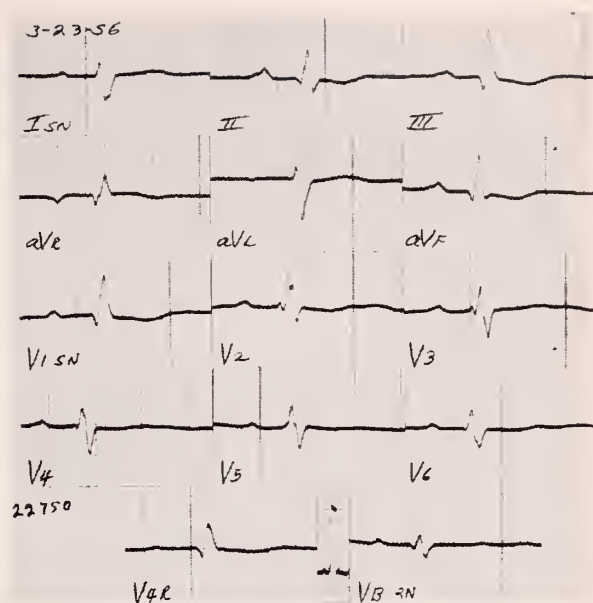


Figure 2. Electrocardiogram on P.H. The mean QRS axis is $+120^\circ$ and is directed forward. The QRS interval is 0.10 seconds. There is an R-R' at V1 and V4R with a prominent R'. There is a broad S at VB. The P deflection in lead II is tall and somewhat spiking. The final ventricular deflection is inverted in leads II, III, aVF and in the precordial leads. The electrocardiographic diagnosis is incomplete right bundle branch block, suggestive right ventricular hypertrophy, right atrial hypertrophy, and primary T wave changes compatible with Digitalis effect. (Electrocardiogram was taken by Doctor Robert H. Bayley.)

high rates of flow prevail the ventricles may fail because of the workload imposed by the handling of inordinately large volumes of blood and the pulmonary vascular resistance remain normal prior to failure.

The Diseases, Primary Pulmonary Hypertension

This disease occurs almost exclusively in the adult female. Its course is characterized by easy fatigue, effort syncope, and chest pain. It is more or less rapidly progressive and terminates in right heart failure. At this time cyanosis may become apparent due to slowing of the peripheral circulation or occasionally due to right to left shunt through a patent foramen ovale as right atrial pressures rise. The cause for the obstructive lesions in the smaller pulmonary arteries is not known. All forms of treatment including thoracic sympathectomy have been unsuccessful.

TABLE 1
Cardiac catheterization data on P.H.

Source	O ₂ vols. %	Pressure, mm.Hg	
		Dynamic	Mean
Sup. vena cava	10.4	—	—
Right atrium	9.7	18-9	12
Right ventricle	9.8	105-25	55
Pul. artery	9.6	105-50	74
Pul. artery, wedged	—	—	7-12
Femoral artery	17.2	114-74	

The data show marked pulmonary arterial hypertension without evidence of shunt. There is nothing to suggest mitral block. Post-mortem examination of the patient two months later confirmed the clinical diagnosis. The patient was referred to us for cardiac catheterization studies by Doctor Harry F. Singleton.

Multiple Pulmonary Emboli

Repeated miliary emboli to the lungs may lead to an increased pulmonary vascular resistance due to obliteration of the vascular bed and, possibly, aggravated by pulmonary vasoconstriction. The anatomic changes in the smaller pulmonary vessels include intimal hyperplasia and resemble those seen in primary pulmonary hypertension and other conditions associated with long-standing pulmonary hypertension. Since the source for small repeated episodes of pulmonary embolization may reside in the pelvic or peripheral veins a history of thrombophlebitis or pregnancy may suggest the initiating factor. Anticoagulant therapy should be instituted in these instances. Because of the small particle size of the emboli, clinical signs of pulmonary infarction may not be present. When emboli of larger size are lodged in the pulmonary arterial circuit, acute pulmonary hypertension and acute cor pulmonale usually result. Emboli of this size are usually not responsible for the appearance of the chronic pulmonary hypertensive syndrome although a few such cases have been reported.

Rheumatic Heart Disease

Some degree of pulmonary hypertension is always present when left atrial pressures are elevated due to stenosis of the mitral valve. The degree of hypertension is usually in keeping with the degree of elevation of the left atrial pressure. In about one-fourth of the patients with rheumatic mitral stenosis there is an inordinate response on the

part of the pulmonary vasculature so that the degree of pulmonary hypertension is out of proportion to the degree of mechanical block at the mitral valve. In these instances the pulmonary arterial resistance may rise to high levels. In some cases only minimal elevation of the left atrial pressure (as reflected by the mean pulmonary artery wedged pressure) occurs. With the appearance of right heart failure, the characteristic mitral diastolic murmur of mitral stenosis may disappear and the clinical picture resemble that of primary pulmonary hypertension. The lesion, once established, is usually irreversible although occasionally mitral commissurotomy has proven effective in combating the pulmonary hypertension. In most cases, however, marked increases in pulmonary arterial resistance are seen with more severe degrees of rheumatic disease when cardiac enlargement is at its greatest and multiple valvular involvement is present so that mitral commissurotomy is a desperate and, for the most part, a last chance measure. In a few patients whom we have studied treatment with adrenal steroid derivatives has proven effective in relieving the right heart failure picture and in increasing exercise tolerance. This improvement may reflect a change in the primary pathologic process in the pulmonary vessels or it may represent a lowering of pulmonary artery pressure secondary to the improvement in the congested state. At times a necrotizing arteritis of the pulmonary arteries may be seen. It is not known definitely whether this represents active rheumatic arteritis, or whether it is a consequence solely of a rise in pulmonary artery pressures. Again, it has been postulated that many of the changes in the smaller pulmonary vessels may be related to repeated multiple small pulmonary emboli.

Chronic Cor Pulmonale

An increased resistance to pulmonary blood flow may occur with diffuse parenchymal lesions of the lungs as well as with obstructive emphysema. In addition to the role of hypoxia, destruction of the pulmonary vascular bed as a result of the disease process leads to aggravation of the pulmonary hypertension. Repeated attacks of pulmonary infection which lead to hypoxia and

further increases in pulmonary artery resistance are associated with bouts of right heart failure. The electrocardiogram may show no evidence of right ventricular hypertrophy until late in the course of the disease. Changes suggestive of right atrial hypertrophy are more frequently seen and appear earlier.

Congenital Heart Disease

Hyperkinetic pulmonary hypertension due to increased blood flow occurs with most lesions with left to right shunts of real magnitude. At times there may be an associated increase of resistance to pulmonary blood flow. In this situation the physiology of the original lesion is considerably altered. With increasing degrees of pulmonary vascular resistance the amount of the left to right shunt diminishes and the right to left shunt increases resulting in cyanosis and polycythemia. The term Eisenmenger's syndrome may be used to describe this particular clinical picture. The initial shunt may have been due to an atrial or ventricular septal defect or a patent ductus arteriosus, but with the appearance of moderate and marked increases in pulmonary vascular resistance the individual features of the original defect are lost. In general when the pulmonary vascular resistance is high and fixed and cyanosis is apparent the lesion is not amenable to surgery. At times there may be evidence of increased pulmonary vascular resistance from birth. This is particularly prone to occur with patent ductus arteriosus and ventricular septal defects. Here it has been postulated that the smaller pulmonary arteries retain their fetal condition into neonatal life. In many instances the inhalation of 100% oxygen will cause a temporary lowering of pulmonary arterial resistance and an improvement in the right to left shunt and lessening of the cyanosis. Unfortunately, this test has not been a reliable indicator

as to whether or not surgery can be tolerated by this group of patients.

Obesity

Occasionally alveolar hypoventilation is observed in the obese individual. Secondary to hypoxia, rises in pulmonary vascular resistance are encountered which may be of sufficient degree to culminate in right-sided heart failure. The syndrome is usually reversible upon the loss of adipose tissue and temporary relief can be obtained through the use of Digitalis and diuretics.

Other Conditions

A variety of diseases which result in increased pulmonary vascular resistance and right heart failure has been described. Anoxia and destructive lesions of the pulmonary vascular bed are implicated alone or in combination. In some, pulmonary vascular thromboses are felt to be significant. The list is large and some of the following are included: sickle cell disease, pulmonary schistosomiasis, endophlebitis of pulmonary veins, pulmonary forms of periarteritis nodosa, disseminated lupus erythematosus, and scleroderma.

Summary

An increased resistance to pulmonary blood flow may result from obstruction of small pulmonary arteries and arterioles, from extensive damage to the pulmonary vascular bed, or from the effects of nervous or chemical reflexes on the pulmonary vascular bed. Obstructive lesions may result from multiple small emboli or may be the consequence of sustained hypertension in the pulmonary circuit. The interplay of the various factors controlling pulmonary blood flow and pressures can only be surmised. Our knowledge of the relationship of these factors to various disease processes is rudimentary.

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ABSTRACTS

Preventive Allergy

CARROLL M. POUNDERS.

Southern Med. Journal, 51: 529-533, 1958

This paper deals with the problems of allergy in early life, emphasizes its frequency and discusses its manner of development. A new descriptive term is used and preventive measures are stressed.

It is loosely divided into: (1) the alimentary phase, (2) the dermal phase, (3) the respiratory phase and (4) the comprehensive phase.

Preventive measures begin with the mother's diet during pregnancy. Monotony is to be avoided, and foods known to rank high in the production of allergy are to be omitted. Breat feeding is to be carried out when possible. Sensitivity to cows milk is avoided by using non-milk substitutes. The beginning of other foods is delayed much longer than the usual starting time. Precautions are carried out regarding beds, sleeping rooms, and play rooms so as to minimize or prevent exposure to the more common inhalants.

The whole idea is to prevent rather than to allow the development of allergic reactions. It is thought that this is the logical way to deal with the problem.

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The Clinical Picture of Far East Influenza Occurring at the Fourth National Boy Scout Jamboree

Report of 616 Cases

ROBERT L. PODOSIN,* and WARREN L. FELTON.**

New England Journal of Medicine, 258: 778-782, 1958

Analysis of an epidemic of 616 cases of Far East influenza occurring at the Fourth National Boy Scout Jamboree revealed the disease to be mild and of short duration. The course of 15.9 per cent of these patients was complicated by pneumonitis, otitis media, acute tonsillitis or acute bronchial asthma. No serious sequelae developed in these patients.

Older patients and those with acute asthmatic attacks had a slightly prolonged course and a higher rate of pulmonary complications.

Antibiotic therapy was not utilized and does not appear to be indicated in the uncomplicated case and should not be reserved for those with obvious bacterial complications.

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The Effect of Chronic Pancreatitis On Pressure Tolerance in The Human Pancreatic Duct

MERLIN K. DuVAL.*

Surgery, 43: 798-801, 1958

1. Pancreatic intraductal resting pressures have been measured in four patients without pancreatic inflammatory disease and in nine patients with chronic pancreatitis.

2. The findings suggest that in patients with chronic pancreatitis pancreatic duct pressure must at least double before evacuation into the duodenum.

3. It is suggested that detection of pancreatic duct obstruction, when present in pancreatitis, may yield a group of patients who will benefit from operative decompression.

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Medical and Surgical Problems Arising At The Fourth National Boy Scout Jamboree Study of Temporary Encampment of Over 50,000 Boy Scouts and Leaders

WARREN L. FELTON II,* and ROBERT L. PODOSIN.**

The Journal of the American Medical Association, 166: 1978-1981, 1958

Of the 52,580 participants in the Fourth National Boy Scout Jamboree held at Valley Forge, Pa., July 12-19, 1957, 987 (1.88%) developed illness requiring hospitalization. These patients were treated at a field hospital at the encampment or at the Valley Forge Army Hospital.

Seventy per cent of these hospitalizations were for respiratory diseases, primarily influenza (of which there were 616 cases). The remainder were for various medical and surgical problems, mostly minor. There were no fatalities and was no occurrence of poliomyelitis.

A low incidence of serious injuries and of disorders related to the encampment itself were noted. Excluding an epidemic, hospitalization of 0.5% to 0.7% of a temporary population of this size and composition may be expected.

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Protein-Anabolic Effectiveness In Postmenopausal and Senile Osteoporosis Of a Single Injection of the Long-Acting Steroid Ester, Testosterone Enanthate

EDWARD C. REIFENSTEIN, Jr.,* and R. PALMER HOWARD.**

Metabolism, 7: 364-373, 1958

Metabolic balance studies in patients with postmenopausal and senile osteoporosis provide evidence that the amount of protein anabolism that can be induced with certain testosterone derivatives is influenced by the duration of the anabolic activity, by the dosage, and by the frequency of administration of these steroid substances. The repeated daily administration of the short-acting compounds, testosterone propionate (by injection) or methyl testosterone (by mouth), in a dosage of 25 to 50 mg. per day, resulted in a retention of nitrogen which averaged 2.13 to 2.30 grams/day during periods of therapy of 24 to 28 days. A single injection of 300 mg. of testosterone propionate caused nitrogen retention which averaged but 0.91 to 1.12 grams/day for a period of only 12 to 14 days. When 600 mg. of the propionate ester was administered as a single dose, the retention of nitrogen still averaged only 1.02 grams/day, and the duration of the anabolic effect lasted for only 12 days.

In contrast, when the long-acting steroid ester, testosterone enanthate, was administered as a single injection of 350 or of 700 mg., the duration of the anabolic activity was 30 to 33 days, respectively. With the smaller dose, the daily nitrogen retention was only 0.83 grams/day; but with the larger dose, the retention was 1.76 grams/day. This latter rate begins to approach that achieved by the daily administration of the short-acting steroid compounds, testosterone propionate and methyltestosterone. It is believed that a still larger single dose of the enanthate ester will have a still greater protein-anabolic effect. The 700 mg. dose of testosterone enanthate also induced a significant retention of phosphorus and of calcium. The potential of this ester as a therapeutic agent for bone anabolism in osteoporosis deserves further study. There were no local reactions or undesirable androgenic manifestations following the injection of these large single doses of the testosterone esters.

A single injection of the long-acting steroid ester, testosterone enanthate, appears to be a.) more effective per milligram of steroid compound and per milliliter of oil solution (of maximal concentration) than either the single or the repeated injection of the short-acting steroid ester, testosterone propionate, and b.) more effective per milligram of steroid compound than the repeated oral administration of the short-acting steroid agent, methyltestosterone, in stimulating the protein anabolism of patients with postmenopausal or senile osteoporosis.

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Isolation of Herpes-Simplex Virus From A Patient With Erythema Multiforme Exudativum (Stevens-Johnson Syndrome)*

DAVID W. FOERSTER,* and L. VERNON SCOTT.**

New England Journal of Medicine, 259: 473-475, 1958

A case of erythema multiforme exudativum (Stevens-Johnson syndrome) is reported in which herpes-simplex virus was isolated from vesicular fluid and identified by serologic technics. A significant rise in antibody titer to the virus was demonstrated. Previous studies in which this virus was implicated in the pathogenesis of erythema multiforme exudativum are reviewed, and its potential role as the etiologic agent is discussed.

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The Influence of Gonadal Hormones On Serum Lipids and Lipoproteins: Studies In Normal and Hypogonadal Subjects

ROBERT H. FURMAN,* and R. PALMER HOWARD.**

Annals of Internal Medicine, 47: 969-977, 1957

It is clear from these studies that the serum high density (alpha) lipoproteins and the ratio of high density to lower density (alpha/beta) lipoproteins are sensitive indicators of change in gonadal hormone relationships. Increase in relative estrogenicity whether by administering estrogen or withdrawing androgen, is always associated with increase in high density lipoprotein concentrations and high density/low density lipoprotein ratios. Increase in relative androgenicity has the opposite effect. The lower density (beta) lipoprotein response is more variable but usually opposite to that of the high density fraction.

Changes in chemically determined cholesterol and phospholipid levels appear to be determined by the nature of the changes in the major lipoprotein fractions under these conditions. On the other hand, absence of change in serum cholesterol or phospholipid levels does not preclude the possibility of major alteration of the lipoprotein spectrum.

Whether these serum lipoprotein-hormone relationships are casually related to the marked sex difference in the incidence of coronary artery disease remains to be determined by further study. There is good agreement among workers in this field that the concentration and physical status of the serum lipids have some etiologic significance in this disease. We feel, therefore, that further efforts in the direction of the studies described are warranted.

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Gastric Carcinoma Occurring In a Gastrectomy

JAMES A. WEBB,* STEWART WOLF,** and JOHN
A. SCHILLING.***

American Journal of Surgery, 96: 430-433, 1958

A case of a patient who has served the public and the medical profession well in our efforts to understand gastric physiology has been presented briefly because of the development of carcinoma in his gastrectomy. He was treated by conservative local excision because of his age, physical condition and personality make-up. An excellent opportunity was afforded to study radioactive phosphorus uptake in a gastric carcinoma under direct visualization. The findings did not suggest that the method is particularly useful for the detection of carcinoma in intact human stomachs.

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The Influence of Androgens Estragens And Related Steroids on Serum Lipids and Lipoproteins

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LEONARD N. NORCIA,*** and E. CORINNE
KEATY.****

The American Journal of Medicine, 24: 80-97, 1958

Data representative of a four-year study of the influence of gonadal steroids on serum lipids and lipoproteins in more than sixty human subjects are presented. Estrogens promptly and consistently increase high density $-S_{1.21}$ 0-12 (alpha) lipoprotein concentrations, while androgens promptly lower them. The concentration of lower density $-S_{1.21}$ 25-40 (beta) or $-S_{1.21}$ 25-70 lipoproteins characteristically either does not change, or changes in a direction opposite to that of the high density lipoproteins, when gonadal steroids are administered. The response of the chemically determined serum cholesterol and phospholipid concentrations may be predicted on the basis of the lipoprotein changes induced by gonadal steroids in individual subjects. When the concentrations of high density and lower density lipoprotein fractions change in opposite directions, serum cholesterol and phospholipid levels show little or no change. When lower density lipoprotein concentrations fail to change following gonadal steroid exhibition, then serum cholesterol and phospholipid levels change in the same direction as that of the high density lipoproteins. Serum phospholipids tend to vary within the high density lipoprotein concentrations more than does the serum cholesterol, presumably because of the relatively high phospholipid/cholesterol ratio of the $-S_{1.21}$ 0-12 lipoproteins.

Changes induced in the serum lipoproteins by gonadal steroids tend to persist for one or more weeks after therapy is discontinued and after nitrogen balance has returned to the control state. No "wearing-off" phenomena have been observed. The responses of the lipoproteins do not appear to be conditioned by urinary gonadotropin or 17-ketosteroid excretion, and may be elicited in hypothyroidism and panhypopituitarism.

The changes induced in the serum lipoproteins of human subjects by gonadal steroid administration suggest that the relative immunity of women to coronary atherosclerosis may be attributable either to relatively large concentrations of high density lipoproteins or to relatively high values for high density/lower density lipoprotein ratios. The data also indicate the necessity of study of the entire serum lipoprotein spectrum if the physiologic or etiologic importance of these lipoproteins in health and disease is to be fully evaluated.

*Associate Professor of Research Medicine, University of Oklahoma School of Medicine.

**Associate Professor of Research Medicine, University of Oklahoma School of Medicine.

***Assistant Professor of Research Biochemistry, University of Oklahoma School of Medicine.

****Formerly Associate Member of the Endocrinology Section of the Oklahoma Medical Research Foundation.

Sociologic, Psychologic, and Metabolic Observations on Patients in the Community of a Metabolic Ward

W. W. SCHOTTSTAEDT,* R. H. PINSKY,** D.
MACKLER,*** and S. WOLF.****

American Journal of Medicine, 25: 248-257, 1958

In this paper are recorded observations made at the Oklahoma Medical Research Hospital over a period of ten weeks of intensive study. Interactions between patients and between staff and patients were found to have marked repercussions in the metabolic data being accumulated. During periods of confusion or change on the ward, a higher percentage of stressful events were associated with significant metabolic fluctuations than during periods of relative tranquility. The data illustrate the importance on interpersonal relationships and of reactions to ward activities and routines on metabolic functions in an environment where dietary intake and activity are rigidly controlled.

*Associate Professor of Medicine and Preventive Medicine, University of Oklahoma School of Medicine.

**Research Associate, New York Hospital, New York City, New York.

***Medical Student at time of study, University of Oklahoma School of Medicine.

****Professor of Medicine, University of Oklahoma School of Medicine.

Faculty News

Four Appointments Approved

Faculty appointments recently approved by the Board of Regents include new members of five clinical and basic science departments at the University of Oklahoma School of Medicine.

They are: Sylvia O. Richardson, M.D., assistant professor of pediatrics; John Harry Gogerty, Ph.D., assistant professor of pharmacology; Shatteen Taylor Blalock, M.D., instructor in preventive medicine and public health; and Warren Locker Felton, III, M.D., clinical assistant in medicine.

Doctor Richardson is director of the Study Center for Exceptional Children at Children's Memorial Hospital. She did four years graduate work in the education of the exceptional child at Columbia University, where she received her M.A. degree in 1942; then started her medical training.

Graduating from McGill University Faculty of Medicine in 1948, she served an internship at Montreal Children's Memorial Hospital. She completed a clinical fellowship in medicine and was director of the speech clinic at Boston Children's Medical Center, 1949-52, returning to Boston in 1954 for cleft palate work as a research fellow in surgery.

Doctor Gogerty received his Ph.D. in pharmacology from the University of Washington, Seattle, in 1958, after being awarded his B.S. in pharmacy at the University of Wyoming and his M.S. at Washington.

One of his major fields of interest is neurohumoral agents that act in the brain and also the electro-physiological changes that occur with different levels of these substances.

At Washington, Doctor Gogerty did research on the tranquilizing agents and the mechanism through which lysergic acid diethylamide produces its psychosis-like effects.

Doctor Blalock also is assistant director of health service for the Medical Center. She received her B.A. from Newcomb College, New Orleans; her M.D. from Emory University School of Medicine in 1956. She interned at University Hospital and finished a residency in internal medicine here July 1.



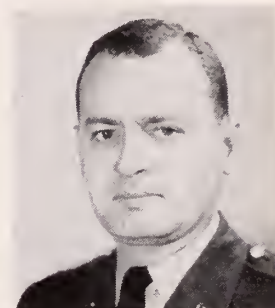
RICHARDSON



GOGERTY



BLALOCK



FELTON

Doctor Felton came to Oklahoma City from Phoenixville, Pa., where he was chief, general surgical service, and acting chief, thoracic surgical service, at Valley Forge General Hospital (U.S. Army) from 1956-58.

He was graduated from Washington University School of Medicine in 1949, subsequently interning in surgery, gynecology and obstetrics at Grace-New Haven Community Hospital and Yale University Medical School, New Haven, Connecticut.

At Yale, he was assistant resident in surgery, research associate in thoracic surgery and chief resident in cardiovascular, thoracic and general surgery.

Imogene Patrick Appointed



PATRICK

Imogene Patrick (Mrs. J. Nelson Taylor) has been appointed Director of Public Relations for the Medical Center. Miss Patrick graduated from the University of Arkansas with a B.A. degree in Journalism.

She then served for two years as a reporter for the *Tulsa World*. For the past twelve years she has worked as a special writer for the *Daily Oklahoman*, much of her time being occupied with medical subjects.



We are not born as the partridge in the wood, to be scattered everywhere; but we are to be grouped together, and brooded by love, and reared day by day in that first of churches: the family.

—Henry Ward Beecher



A MERRY CHRISTMAS

from

The Mohler Family



IN DEBILITATING DISEASE

Patients receiving

NILEVAR[®]

Eat more...

Feel better...

Recover faster

Compared to control patients, those receiving Nilevar (brand of norethandrolone) have repeatedly demonstrated more rapid and more complete recovery from serious acute illness and increased comfort and well-being in chronic illness.

A multitude of case histories are now adding individual clinical color to the earlier controlled investigations which defined the actions of Nilevar as an effective aid in reversing negative nitrogen balance and in building protein tissue.

In typical case reports such gratifying comments as these appear:

Underweight — "Appetite considerably increased within one week. Sense of well-being and vigor increased along with increased appetite."

Prematurity (Birth weight: 2 pounds, 4 ounces) — "Gradual improvement in appetite and capacity for formula. . . . Excellent progress and weight gain for a very immature infant."

Carcinoma of the Uterus — "Within four days appetite became excellent, took full diet. . . . More ambition while on Nilevar. Enjoys life. Takes part in church and other social affairs."

Third Degree Burn — ". . . soon began eating all that was offered. . . . Began to show signs of hope for recovery. . . . Perhaps one of the greatest changes was in the appearance of his wounds which were so very much improved."

The dosage for adults is 20 to 30 mg. daily in single courses no longer than three months. For children the daily dosage is 0.5 mg. per kilogram of body weight, in single courses no longer than three months.

Nilevar is supplied in tablets of 10 mg. and ampuls of 25 mg. (1 cc.).

G. D. Searle & Co., Chicago 80, Illinois. Research in the Service of Medicine.

SEARLE

Medical News

Medicare Costs Mount; \$9.2 Million Per Month

The medicare program is increasing in cost, according to Brig. Gen. Floyd L. Wergeland, head of the Office for Dependents Medical Care. For October, costs rose to \$9.2 million, the highest since the operation began nearly two years ago. It was also the first month of restricted benefits, although the October total includes payments for services rendered some time back. If the present rate of costs continues, it would appear obvious that the \$72 million voted by the last Congress for the civilian phase of the program will be used some months before the end of the fiscal year. For instance, were the October rate to continue for the rest of the fiscal year, the total would amount to around \$106 million. Defense Department could ask the next Congress for a deficiency appropriation.

Gen. Wergeland, commenting on the limitations that went into effect in October, said: "Obviously it will take some time before the kinks are ironed out of the revised procedures and program. We hope that what we have done will achieve the ends we had in mind, but we do not know how it will work out in practice. Only time will tell."

National Foundation to Offer Health Scholarships

The National Foundation, as a first step in its expanded program of medical scientific research, patient aid and professional education is undertaking a long range program to add to the qualified people available for research and patient care. National Foundation Health Scholarships will be provided in five fields: medicine, nursing, physical therapy, occupational therapy and medical social work.

These scholarships cover four years of college or university education in each field and are designed to encourage a younger age group to select a career in one of the

professions at a time when they are looking to their future, full of idealism and the desire to be of service. A minimum of 505 Health Scholarships will be offered each year, the first before the end of the 1959 school year. They will be awarded on a geographic basis, with heavily populated areas receiving as many as twenty-five, or five from each of the five professions, and no state receiving less than five scholarships.

Over the next ten years, this program will cost at least \$12,000,000. Each awardee will receive \$500 a year for four years, providing that scholastic standards are maintained.

Awards, taking financial need and scholastic achievement into consideration, will be made by state and territorial committees composed of members of the five health professions. The Oklahoma State Medical Association has been asked to supply a physician to serve on the state committee.

International College of Surgeons To Meet in Miami Beach

Nearly 100 surgeons from 19 states and three foreign countries, including instructors from 18 medical schools, will present the scientific program at the Southeastern Regional Meeting of the United States Section, International College of Surgeons, in Miami Beach, Fla., January 4-7. Sessions will be held in the American Hotel.

The first day, Sunday, will be devoted to registration and to a cinema program under the direction of Doctors Philip Thorek and Jerome J. Moses, Chicago. Starting Monday, 12 surgical specialties will hold breakfast discussions, with a question and answer period for an hour. These will be followed by a general surgery program carrying through until about 1 o'clock, with a break for viewing scientific exhibits. Specialty group meetings will be held Monday and Tuesday afternoons.

Smith, Kline & French, Philadelphia, will televise operations in color in the mornings from St. Francis Hospital, Miami Beach, to the Americana Hotel.

A special feature will be a panel for general practitioners on Tuesday morning. This has been accorded Category I credit by the American Academy of General Practice. The panel will deal with the management of surgical emergencies, with Dr. Ross T. McIntire, Chicago, executive director of the International College of Surgeons as moderator.

Other participants in the panel will be: Doctors George F. Lull, Edward L. Compere and Philip Thorek, Chicago; Charles P. Bailey, Philadelphia; Winchell McK. Craig and Gershom J. Thompson, Rochester, Minn.; Arthur Neal Owens, New Orleans, and Jack H. Beckwith, D.D.S., Miami.

Doctor Louis M. Orr of Orlando, Fla., president-elect of the American Medical Association, will be the banquet speaker on Tuesday evening. A floor show with name stars will be presented.

Orange Bowl Tickets Available

The first 200 advance registrants will have a choice of 200 tickets, at regular prices, for the 25th anniversary celebration of the Orange Bowl Festival. These comprise the Orange Bowl game on New Year's Day and the King Orange Parade, New Year's Eve.

There will be a \$10 registration fee for members of the International College of Surgeons and \$5 for members of the American Academy of General Practice. Speakers, guests, interns, residents, nurses and others will be admitted free.

There also will be a surgical nurse program and a Woman's Auxiliary program.

Further information may be had from Doctor Harold O. Hallstrand, general chairman, 7210 Red Road, South Miami, Fla., or Doctor Ross T. McIntire, executive director, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

Four Men Appointed To AMA Field Division

Mr. Aubrey D. Gates, Director of the newly-established Division of Field Service of the AMA, recently announced the appointment of four staff members. They are: Glenn W. Gillette, formerly Associate Director of Public Relations, California Medical Association; Rueben M. Dalbec, formerly Executive Assistant, Kansas Medical Society; Charles Johnson, formerly Director of Public Relations, Arkansas Blue Cross-Blue Shield; and, Richard Nelson, formerly staff member, American Farm Bureau Federation.

The formation of the new division, which will provide a personal-contact liaison between state medical societies and the Board of Trustees of the AMA, resulted from the overall reorganization of the AMA and the consolidation of many of the departments, councils and bureaus into a more orderly system of eight Divisions. Before being chosen to head the Field Service Division, Mr. Gates was serving the AMA in the capacity of Field Director of the Council on Rural Health.

Mr. Gates revealed that Mr. Gillette has been tentatively assigned to serve Oklahoma and said that the new liaison man would be visiting the state in the near future.

New Orleans Graduate Medical Assembly to Meet in March

The 22nd Annual Meeting of the New Orleans Graduate Medical Assembly will be held March 2, 3, 4, 5, 1959, with headquarters in the Roosevelt Hotel in New Orleans. The program will feature 18 prominent guest speakers from all over the United States.

Following the meeting, the 15th Annual Clinical Tour will leave on March 6 for Mexico City, Cuernavaca, Xochimilco, Taxco, Acapulco and San Jose Purua, returning to New Orleans on March 21.

Further information is available by writing to Maurice E. St. Martin, M.D., 1430 Tulane Avenue, New Orleans 12, Louisiana.

Wanted: Old Photos of Physicians Driving Ancient Cars

The Illinois State Medical Society is preparing an exhibit centered around an *Illinois Medical Journal* article which told of the role of physicians in the development of the automobile in the United States at the turn of the century.

To help illustrate this exhibit, the Society will appreciate the loan of old photographs showing physicians at the wheels of cars of 1900-1910 vintage. Scenes showing difficulties on the road, or poor highway conditions, are especially desired. Enlargements will be made of these photographs and the originals returned undamaged.

Photographs should be accompanied by a memo giving the name and town of the physician, whether living or deceased, and the make and year of the automobile. They should be sent to Mr. John A. Mirt, Illinois State Medical Society, 185 North Wabash Avenue, Chicago 1.

Campaign for Polio Shots to Resume

The Public Health Service has decided to resume the public educational program aimed at getting more people inoculated with the Salk poliomyelitis vaccine. The reason is that the drive of last winter and spring has fallen short of expectations. In the words of Secretary Flemming, "... we have not made nearly the progress we could and should have made during the year—a year in which for the first time there was no shortage of vaccine at any time in any area."

Upshot is that Advertising Council will again carry out a promotion campaign, with the cooperation of the American Medical Association, the National Foundation, state and local health departments and private groups.

Surgeon General Burney of Public Health Service made a report on the 1958 polio season with these highlights:

Of the population under age 40, about 53% has not had the basic three injections,

and over a third has had no vaccine at all. There were 1,815 cases of paralytic polio during the first nine months of the year, 258 more than in the same period in 1957.

Cited as a disturbing factor was that in six states (Michigan, New Jersey, Virginia, Texas, West Virginia and California) the majority of paralytic cases, 416 out of 781, were among children under five. Of these 416, four out of five had had no vaccine.

There is mounting evidence that incidence of polio is increasing in lower socio-economic groups. Mr. Flemming blames this on apathy, not any "insurmountable financial obstacles." He pointed out funds were available from a number of sources and that the AMA has encouraged state and local societies to organize community clinics and provide vaccinations at minimal cost.

The increase in the number of paralytic cases is no reflection on the efficacy of the vaccine. During the 3½ years of use, effectiveness rate has held between 60 and 90%. Nor is there any evidence that properly vaccinated persons are losing their immunity.

Both Mr. Flemming and Doctor Burney expressed doubts over the need for any compulsory program of vaccinations for polio.

Fundamental Cancer Research Symposium to Meet in Texas

Four phases of Genetics and Cancer will be discussed at the Thirteenth Annual Symposium on Fundamental Cancer Research to be held February 26, 27 and 28, 1959 at the University of Texas M.D. Anderson Hospital and Tumor Institute, Houston, Texas.

Opening session of the meeting will be devoted to Fundamental Aspects of Genetics in Carcinogenesis. On the second day of the symposium, the topics will include Gene Interaction in Neoplastic Growth and Genetic Basis of Cell Resistance. On the final day, Heredity and Human Cancer will be discussed.

Further information regarding the Symposium may be obtained by writing to The University of Texas M.D. Anderson Hospital and Tumor Institute, Houston, Texas.

Federal Health Spending Up For Fiscal 1958-59

Federal activity in the health field has reached a massive scale, as reported in a special report from the AMA's Washington office. This year, 1958-59 fiscal period, the government is spending 62.6% more than it did five years ago, 13.5% more than last year.

Programs in twenty-two separate agencies and departments of government range from cancer research to federal employees clinics. The total cost is \$2.8 billion, or \$344.7 million more than last year. At the present time, health agencies and the Bureau of the Budget are working on requests to be presented to Congress in January. It is anticipated that these measures will result in setting another new high in government spending.

The AMA report covers the current fiscal year which ends next June 30. For the past six years, the Washington Office has prepared this budget report and charted the expanding course of federal medical activity.

While nearly 38 million people are eligible to receive all or part of their medical care from or through the Federal Government, medical care represents only a part of the total spent by the U.S. in medical fields. Many millions go for research, drug control, personnel training and other efforts not directly related to medical care.

Highschool Essay Contest Sponsored by A.A.P.S.

A national highschool essay contest has been announced by the American Association of Physicians and Surgeons. The contest represents the thirteenth in a series of annual promotions designed to stimulate understanding and appreciation of America's systems of private medical care and free enterprise.

All students of public, parochial and private highschools are eligible to participate. Contestants will have their choice between two topics: "The Advantages of Private Medical Care" and "The Advantages of the American Free Enterprise System."

Fourteen national cash prizes will be awarded to the top essayists. Prizes will range from \$1,000 to \$75. County societies wishing to sponsor the contest locally should select the best three papers submitted and forward them to the state association for further judging. Three papers from the state will be entered in the national contest.

Essays must be limited to 1,500 words and should be written on one side of 8½ x 11 paper, double spaced, if typewritten. Each student must type his name, address, telephone number, school and grade on either the cover or first page of his essay.

Winning papers from county societies should reach the OSMA executive office prior to March 15, 1959. State winners will be entered in the national contest before April 1, 1959.

Examinations Scheduled by American Board of OB and Gyn

The next scheduled examinations (Part II), oral and clinical for all candidates will be conducted at the Edgewater Beach Hotel, Chicago, Illinois, by the entire Board from May 8 through May 19, 1959. Formal notice of the exact time of each candidate's examination will be sent him in advance of the examination dates.

Candidates who participated in the Part I examinations will be notified of their eligibility for the Part II examinations as soon as possible.

Current Bulletins of the American Board of Obstetrics and Gynecology, outlining the requirements for application, may be obtained by writing to the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

ANNUAL MEETING

April 20, 21, 22, 1959

Mayo Hotel

Tulsa, Oklahoma

MEDICO-LEGAL BRIEFS

Prepared by the Law Department of the
American Medical Association

BELLI CHANGES HIS VIEWS ON MEDICAL PROFESSIONAL LIABILITY—In the 1958 Supplement to his book entitled "Modern Trials" Melvin M. Belli, San Francisco attorney, makes the following comment on medical professional liability. Since it represents such a drastic change from his previously expressed views on the subject we felt it was worth repeating:

"The one dark portend upon the horizon toward which modern tort law is trending is the medical malpractice case. I have written considerable on this problem, and recently in reviewing my writings, I do believe the doctor's side needs telling. In my own state of California, there are more and varied malpractice cases than in any other state in the United States—probably because we have more sunshine, nostrums, manipulations, fresh fruit, frozen fruit, nuts, avocados, airplanes and doctors than elsewhere. I shall try to tell the doctor's side shortly. I shall propose first that we remove any stigma of 'guilt' in the malpractice suit and avoid the problem of doctor testimony for plaintiff by setting up lawyer-doctor committees in each community.

"I believe that lawyers can be encouraged to present their cases first to these committees in private. If the case is one of malpractice, settlement should be arranged. If it is not one of malpractice then the committee should lend its professional endeavors both legal and medical to avoid the suit. These latter are the cases in which there is no proximate cause, i.e., an injection of vaccine into a child who comes down with a disease that can be directly traceable to another source than the doctor's hypodermic.

"But there are a great number of malpractice cases, and it seems to enlarge every day as the lawyer learns more of medicine, in which the untoward result is not malpractice at all but the failure of nature to divulge all of her secrets except to succeeding generations: these are the cases of contaminated blood, the cases of staphylococcus infections in hospitals, the cases in which an unexpected and unwanted and untoward result obtains.

"If the law in products liability is trending toward an absolute liability, placing the risk on a broader basis than the individual, through insur-

ance, then should this not be a clue to the solution of this third type of malpractice case that is without the fault of the doctor, but certainly without the fault of the patient. It can only be called the fault of Mother Nature if one must, as with the ancients never be satisfied until he finds whom to blame, whether person, tree, rock, lightning, storm or a God

"Would it not be possible to establish community funds of insurance, paid for by patients by adding a certain percentage to each hospital and each doctor bill for the benefit of the unfortunate recipient of the 'untoward result' that is neither in the first class of outright malpractice, or in the third class of no proximate cause. The administration of this fund might be by a committee of lawyers, doctors and laymen."

Introduction, pp. vii and viii, 1958 Supplement Modern Trials by Melvin M. Belli, the Bobbs-Merrill Company, Inc., Indianapolis, Indiana

ABORTION—An incompetent, through her mother and guardian *ad litem*, brought an action against the State of New York for damages for her pregnancy while at a state hospital, and for a subsequent abortion performed on her. The Court of Claims entered judgment for the incompetent for \$5,000 for pregnancy, and for \$10,000 for the abortion. The Court held that the evidence was sufficient to establish negligence on the part of the attendants responsible for her care and supervision at the time of the alleged assault on her by another inmate, and that evidence was insufficient to establish that the abortion was justified. On appeal, the New York Supreme Court, Appellate Division, 3rd Department, held that there was no evidence of negligent supervision but that the incompetent was entitled to recover damages for the abortion performed without her consent. The Court of Appeals affirmed the decision of the Supreme Court on February 28, 1958.

McCandless v. State of New York, 173 N.Y.S. 2d 30 (N. Y., Feb. 28, 1958)

Further information on the preceding cases may be obtained from the Law Department, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

Coming Meetings

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

POSTGRADUATE PROGRAM*

Oklohomo City, Oklohomo

Individual Postgraduate Courses

ADVANCE ELECTROCARDIOGRAPHY — March 2 through 6

(Prerequisite, Dr. Bayley's Basic Electrocardiography course.)

OBSTETRICAL-GYNECOLOGICAL SYMPOSIUM—March 7

Sponsored by the Oklahoma City Obstetrical and Gynecological Society. There will be two prominent guest lecturers.

OPHTHALMOLOGY-OTOLARYNGOLOGY SYMPOSIUM—March 12 and 13

Sponsored by Oklahoma City Society of Ophthalmology and Otolaryngology.

Guest Lecturers:

Michael J. Hogan, M.D., Ophthalmologist, San Francisco.

Prominent Otolaryngologist to be announced.

ORTHOPEDIC SYMPOSIUM—April 10 and 11

Treatment of Athletic Injuries.

Sponsored by the Regional Committee on Trauma of the American College of Surgeons.

FIFTH ANNUAL COMBINED SURGERY, RADIOLOGY, PATHOLOGY SYMPOSIUM—May 14 and 15

Diagnosis and Treatment of Thyroid Diseases.

Sponsored by the Oklahoma Association of Pathologists, Oklahoma Association of Radiologists and Oklahoma Chapter of American College of Surgeons. Guest participants of national reputation in surgery, radiology and pathology will participate.

OKLAHOMA ASSOCIATION OF HOUSE STAFF PHYSICIANS—May 22

Two guest lecturers and presentation of original papers by members of the various house staffs will highlight this program. Participating hospitals are: Hillcrest Medical Center, Tulsa, St. John's, Tulsa; McBride, Mercy, St. Anthony, University, Veterans Administration, Wesley, Oklahoma City; Central State Hospital, Norman.

SERIAL POSTGRADUATE COURSE

Postgraduate Division

UNIVERSITY OF OKLAHOMA MEDICAL CENTER

Oklohomo City, Oklohomo

1958-1959

Jan. 14—Pediatrics—Diagnosis and Management of

Heart Disease in Infancy and Childhood.

Feb. 11—Urology Symposium and C. B. Taylor Lectureship. (Guest Lecturer to be Announced.)

Mar. 11—Medicine—Advances in the Diagnosis and Management of Common Allergic Disorders.

April 8—Anesthesiology—Anesthesia for the Part-Time Anesthetist.

May 13—Pediatrics—Antimicrobial Therapy and Treatment of Infectious Disease in Childhood.

June 10—Surgery—Herniae.

Designed so physicians may attend four hours of formal instruction in the above fields while spending only one-half day from their office, this series is approved for credit by the Oklahoma Academy of General Practice. Time will be 3:30 to 8:30 p.m. on the Second Wednesday of each month, September through June. Registration is \$3.00 per session or \$25.00 for the entire series.

*Further information may be obtained from the Office of Postgraduate Education, University of Oklahoma School of Medicine, 801 N.E. 13th Street, Oklahoma City, Oklahoma.

ALPHA OMEGA ALPHA LECTURESHIP

December 14, 1958

8:00 p.m.

University of Oklahomo School of Medicine Auditorium

Guest speaker for the Alpha Omega Alpha Lecture-ship will be Owen H. Wangensteen, M.D. Additional information may be obtained by writing to Henry Mosley, President of the Oklahoma Chapter of A.O.A., 1108½ Northeast 18th Street, Oklahoma City, Oklahoma.

ANNUAL STATE MEETING OKLAHOMA AAGP

February 2-3, 1959

Biltmore Hotel

Oklohomo City

The Annual State Meeting of the Oklahoma Chapter of the AAGP will be held February 2-3, 1959 in the Biltmore Hotel in Oklahoma City. A complete program and detailed information are available by writing P. D. Casper, M.D., Program Chairman, 4405 S.E. 28th Street, Oklahoma City.

**THE UNIVERSITY OF TEXAS
POSTGRADUATE SCHOOL OF MEDICINE**

Practical Electrocardiography*
December 15-19, 1958 **Houston, Texas**

The University of Texas, Postgraduate School of Medicine announces a course in Practical Electrocardiography to be held in Houston, December 15-19, 1958. The course will emphasize Spatial Vector-Electrocardiography. The J.J. and Una Truitt Lecturer for this course will be Robert F. Grant, M.D., of the National Heart Institute.

Anesthesiology*
February 18, 19, 20, 1959 **Houston, Texas**

The Fourth Annual Course in Anesthesiology to be offered by the University of Texas Postgraduate School of Medicine will be held February 18, 19, 20, 1959 in Houston. The course is designed to review theory and practice of commonly used anesthetic techniques and will include discussions of some of the newer drugs.

*Address all inquiries to: The University of Texas Postgraduate School of Medicine, 410 Jesse Jones Library Building, Houston 25, Texas.

**THE UNIVERSITY OF TEXAS
POSTGRADUATE SCHOOL OF MEDICINE**

**Seventh Postgraduate Conference
in Medicine and Surgery**
March 2, 3, 4, 1959 **Temple, Texas**

The Temple Division of the University of Texas Postgraduate School of Medicine announces its Seventh Postgraduate Conference stressing Current Topics in Medicine and Surgery. The program, sponsored by Scott, Sherwood and Brindley Foundation, will be presented in Temple on March 2, 3, 4, 1959.

F. J. L. Blasingame, M.D., Executive Vice-President

of the American Medical Association, will be the guest speaker.

Registration forms are available from the office of the Assistant Dean, University of Texas Postgraduate School of Medicine, Temple Division, Temple, Texas.

The New Orleans Graduate Medical Assembly
March 2, 3, 4, 5, 1959, Roosevelt Hotel
New Orleans, Louisiana

The 22nd Annual Meeting of the New Orleans Graduate Medical Assembly will be held March 2, 3, 4, 5, 1959 at the Roosevelt Hotel in New Orleans. For information concerning the program and an itinerary of the clinical tour to Mexico which follows the New Orleans meeting, write to, Maurice E. St. Martin, M.D., Secretary, New Orleans Graduate Medical Assembly, Fourteen Thirty Tulane Avenue, New Orleans 12, Louisiana.

7th ANNUAL CANCER SEMINAR
January 22-24, 1958 **Phoenix, Arizona**

The 7th Annual Cancer Seminar of the Arizona Division of the American Cancer Society, will be held January 22-24, 1959 at the Paradise Inn, Phoenix, Arizona. Detailed information is available by writing to Seminar Committee Chairman, Edward H. Bregman, M.D., 543 East McDowell Road, Phoenix, Arizona.

**INTERNATIONAL MEDICAL ASSEMBLY
of
SOUTHWEST TEXAS**

January 26, 27, 28, 1959
Gunter Hotel **San Antonio, Texas**

The International Medical Assembly of Southwest Texas will hold its annual meeting January 26, 27, 28, 1959 in San Antonio, Texas at the Gunter Hotel. Further information may be obtained by writing to Mr. S. E. Cockrell, Jr., Executive Secretary, 202 West French Place, San Antonio, Texas.

**Plan to Attend The
53rd Annual Meeting**

of the

**Oklahoma State
Medical Association**

April 20, 21, 22, 1959

Mayo Hotel

Tulsa, Oklahoma

Organization News

New Health and Accident Insurance Program Available

A broader, more flexible group Health and Accident insurance program is now available for members of the Oklahoma State Medical Association, it was announced recently by Ralph Smith, M.D., Chairman of the Insurance Committee. The new program will replace the existing disability program which offered a maximum of \$200 monthly benefits and will be written by the same insurance carrier, the North American Accident Insurance Company.

The Insurance Committee has been studying the inadequacy of the health and accident program for some time. Policies of other state and national medical societies were reviewed and the best features of a number of different plans were incorporated into specifications for a revised Oklahoma program. The specifications were then submitted to several insurance companies for competitive bidding, with North American emerging as the company of choice. According to Doctor Smith, "The new program will offer Oklahoma physicians health and accident coverage which is realistic in the light of present-day needs and we sincerely feel that the broad benefits and options offered in this plan make it the most outstanding group contract in the country."

Plan in Brief

Under the new program, six different combinations of waiting periods and years of coverage will be offered. A physician will have his choice of three waiting periods before receiving his benefits, and an option will also be offered of either three or five years sickness benefits. Lifetime benefits will be payable in all cases of accident disability.

Within each of the six combinations mentioned above, the majority of physicians will be able to select their monthly indemnity.

Monthly accident and sickness indemnities of \$200, \$300, \$400, \$500, and \$600 are provided in the master contract.

All members of the Association under age 70 will be eligible to participate. Members in the age groups 60-65 and 65-70 will be able to apply for \$300 per month and \$200 per month, respectively. Members under age 60 will be eligible for their choice of \$200 to \$600 per month coverage.

All members up to the age limit of 70 will be able to obtain at least \$200 per month coverage without evidence of insurability provided they enroll within the Charter Enrollment Period which began December 15 and will end on April 15, 1959. The company may require evidence of insurability in the case of impaired risks who apply for monthly benefits above the \$200 limit.

Changeover

The liberal benefits of the new contract make it necessary to discontinue the old program of \$200 maximum monthly benefits. No physicians will have their insurance cancelled as a result of the changeover, however, since all members will be able to transfer to the new program and receive at least equal cash benefits without evidence of insurability. Members presently covered under the old program may either change during the Charter Enrollment Period (and receive a refund of any unearned premium from the old contract) or wait until the next renewal premium due date.

Further Information

Members of the Oklahoma State Medical Association will receive more detailed information through the mail. It is also planned for representatives of the North American Accident Insurance Company to personally call on County Medical Societies and individual physicians.



Everett S. Lain, M.D., cited by School of Medicine Alumni as "Professor Emeritus of the year," and Mrs. Lain at the speaker's table at the Alumni Association's annual banquet. Plaques also were presented two professors emeritus honored in past years, Joseph T. Martin, M.D., left, Oklahoma City, and J. M. Thuringer, M.D., Fayetteville, Ark.

Everett S. Lain Honored

"Professor Emeritus of the Year" honors went to Everett S. Lain, M.D., Oklahoma City dermatologist, at the annual membership meeting and banquet of the Alumni Association of the University of Oklahoma School of Medicine.

Some 260 persons, one of the largest alumni gatherings, attended the program October 26 in the Persian room, Skirvin Tower Hotel. They installed Carl H. Bailey, M.D., Stroud, as president, and named John R. Taylor, M.D., Kingfisher, president-elect.

Doctor Lain became the fifth professor emeritus to be cited by the Alumni. He reached professor emeritus status in 1942, having served on the faculty since the founding of the school. The physician retired from the private practice of medicine in 1954. He had pioneered in the use of x-ray and radium in the state.

His awards include the American Medical Association certificate of honor for research in diseases of the mouth, presented in 1933. He is a former member of the American Cancer Society board of directors and helped organize the society's Oklahoma division.

Doctor Lain received his M.D. degree from Vanderbilt University.

He was introduced at the banquet by L. Chester McHenry, M.D., Oklahoma City. The alumni this year initiated a program of giving plaques to the emeritus honoree.

Plaques were also awarded professors emeritus honored in past years. On hand to receive the award were Joseph T. Martin, M.D., Oklahoma City, the 1954 honoree, and J. M. Thuringer, M.D., Fayetteville, Ark., the 1956 award winner. Wann Langston, M.D., Oklahoma City, the 1957 honoree, was out of the city.

Special tables were reserved for five-year reunion classes, beginning with the class of 1913.

A. B. Smith, M.D., Stillwater, outgoing president, turned over the gavel to Doctor Bailey. Other new officers are: W. F. Lewis, M.D., Lawton, vice-president; Samuel T. Moore, M.D., Oklahoma City, secretary; and Douglas E. Wilson, M.D., Lawton, treasurer.

Association members also voted to expand their board of trustees from 12 to 37 members.

February Meeting Scheduled by Oklahoma AAGP

Fields of medicine and surgery which have not been covered in recent meetings will provide topics for the guest speakers for the Annual State Meeting of the Oklahoma Chapter of the AAGP. Dates of the meeting have been set for February 2-3, 1959 in the Biltmore Hotel, Oklahoma City.

The Scientific Committee for the annual state meeting has secured an outstanding group of guest speakers. More detailed information may be obtained by writing to Program Chairman, P. D. Casper, M.D., 4405 S.E. 28th Street, Oklahoma City.

Special entertainment which has been planned for the ladies includes a brunch at the Faculty Club, 601 North East 14th Street, at 11:00 a.m. on February 2. Special entertainment has been planned and door prizes will be awarded. General Chairman for the event will be Mrs. P. D. Casper.

Muskogee Medical Center Under Construction

Construction has been started on a new Professional Office Building in Muskogee, Oklahoma. This building is being constructed for a corporation, made up of several Muskogee doctors. They are, Eugene M. Henry, M.D., Port Johnson, M.D., George L. Kaiser, M.D., Albert H. Krause, M.D., Shade D. Neely, M.D., Bartis M. Kent, M.D., C. L. Oglesbee, M.D., and John R. Rafter, M.D.

The building will contain eight office suites for doctors, and is designed in such a way that additions can be easily made. It will also house a branch of the C. J. Pierce Pharmacy of Muskogee, and a branch of the Snyder Artificial Limb and Brace Company of Tulsa.

The building, which will be constructed of brick and stone, is located on a large plot of ground immediately across 36th street from the new Muskogee General Hospital, which will open in February, 1959, with a bed capacity of about one hundred fifty beds. It is expected that the new office building will be ready for occupancy in May, 1959. It will be known as The Muskogee Medical Center.

Doctor First to Head Flying Physicians

F. R. First, M.D., Checotah, Vice-President of the OSMA, was recently elected President of the newly-formed Oklahoma Chapter of the Flying Physicians Association. His election took place at Western Hills Lodge, Sequoyah State Park, following a fly-in dedication of the new Western Hills landing strip.

The Association, with chapters in forty states, has grown from a membership of 375 to 1200 in the past year. Oklahoma's chapter will hold its first annual meeting at Western Hills in September, 1959, at which time it will simultaneously host the national group's annual clinical meeting. The FPA's annual clinical meetings consider problems of aviation medicine.

Membership Requirements

Members are required to have a private pilot's license and be members of the AMA. They do not have to own a plane. To maintain membership they must qualify with ten minutes of instrument flying and demonstrate ability to do a 180 degree turn under instrument conditions.

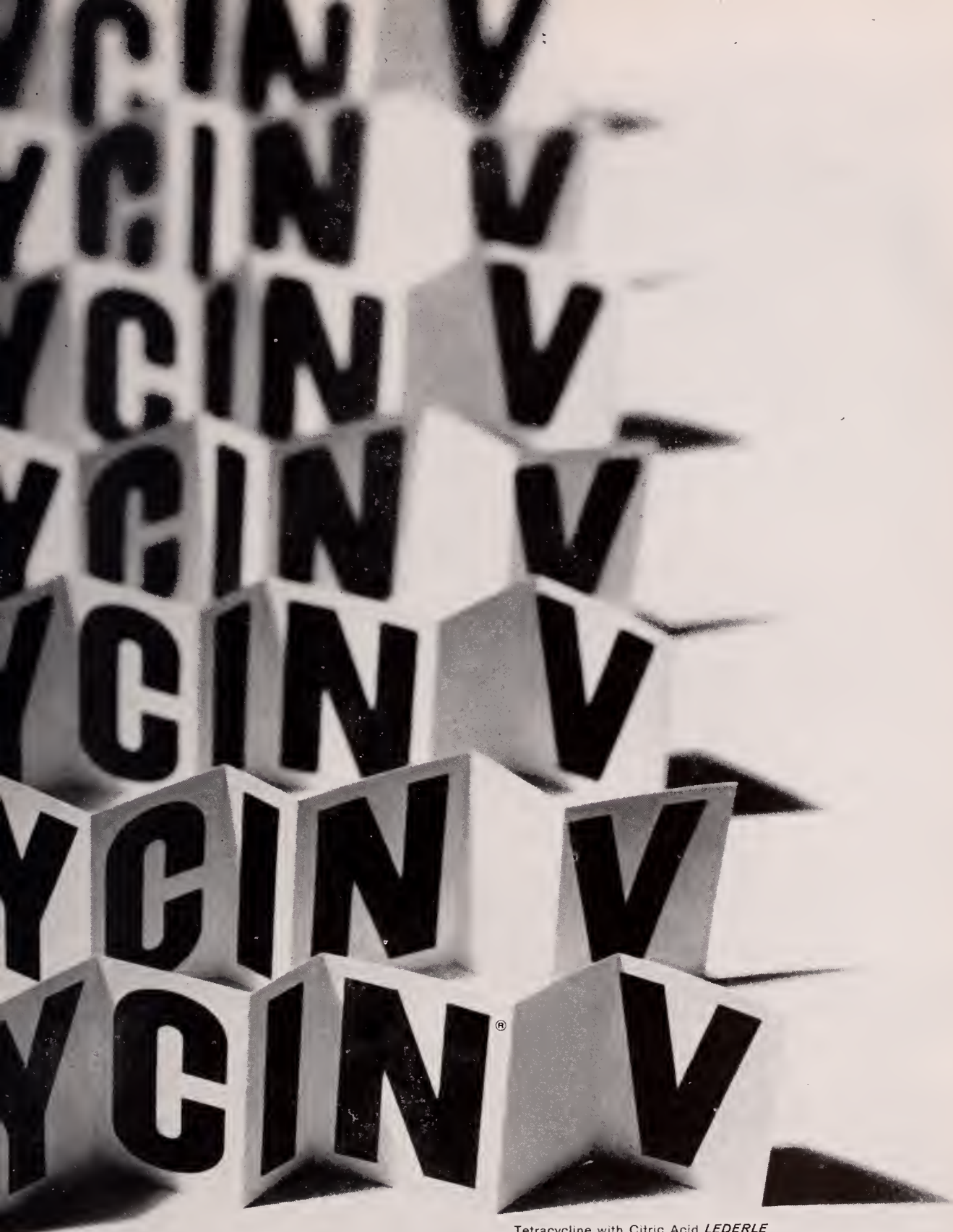
Unique CD Role

The Association will play a unique role in the event of a Civil Defense emergency or comparable disaster, according to Doctor First. "One of the Association's basic objectives is to cooperate with civilian agencies engaged in the defense of our country," he explained.

As outlined by Doctor First, the national defense program being developed by the Flying Physicians would make 1,500 private planes, each with a physician pilot, available for emergency medical care work. The program further provides that each physician be prepared to take nurses and medical supplies with him on short notice.

Physicians interested in joining the Flying Physicians Association should write to Mark DeGroff, Executive Secretary, Box 3275, Tulsa, Oklahoma.





Tetracycline with Citric Acid **LEDERLE**

E. N. Fair Honored For Fifty Year Service; Medical Scholarship Announced



E. N. Fair, M.D., is pictured, left above, receiving a 50-year pin from A. T. Baker, M.D.

The Oklahoma State Medical Association, the Haskell-LeFlore County Medical Society and the Heavener Lions Club honored E. N. Fair, M.D., on November 9 with the presentation of a Fifty Year Pin and a community tribute to the physician's half-century in the practice of medicine. An unexpected surprise was in store for nearly everyone when Doctor Fair's son, Edwin Fair, M.D., Ponca City, used the appropriate occasion to announce the establishment of the Ellis N. and Anna M. Fair Medical Student Loan Fund.

The elder Doctor Fair received his M.D. degree from the University of Louisville in 1908 and practiced in his native Scott County, Arkansas before going to the Heavener area in 1910. As the latest member of the OSMA's Fifty Year Club, he was presented a gold lapel pin by A. T. Baker, M.D., Durant, President-Elect of the State Association.

Several hundred well-wishers turned out to give testimonial evidence of the gratitude felt toward the physician. Among the group were several out-of-town physicians including two physician friends from Arkansas.

The honoree responded to the words of R. L. Winters, M.D., President of the county medical society and Doctor Baker by pointing out that the great number of people pres-

ent to pay tribute to him were there because he was "their friend." "None of you are here because I possess superior medical skill," Doctor Fair said. "You're here because I have always given you my hand." Throughout his response, the elderly physician stressed the human relations side of the practice of medicine.

Unique Scholarship

In announcing the medical education scholarship established in the name of his mother and father, Doctor Edwin Fair explained that a personal loan made by him and his father to a young friend eight years ago was the beginning of a unique idea which promises to help generations of students at the University of Oklahoma School of Medicine.

The original borrower, Jodie Edge, M.D., Shawnee, brought his financial problem to the Fairs after having been accepted as an O.U. student. They agreed to pay for his education with the provisions that repayment would begin two years after graduation, that an acceptable rate of interest would be paid, and that a life insurance policy would be purchased making the Doctors Fair beneficiaries for the amount of the loan.

Doctor Edwin Fair and his wife later decided that the loan project was worthwhile enough to be set up on a continuing basis, particularly since Doctor Edge had told them he would never consider the debt repaid until he had financially sponsored another medical student. Because of his intention to sponsor another student, interest payments have been waived for Doctor Edge.

Now established on a formal basis, the loans shall be made to worthy students as selected by a committee consisting of Doctor Edwin Fair, Doctor Edge and A. N. Taylor, Ph.D., Dean of Student Affairs at O.U. Doctor Taylor will receive applications for the committee's consideration and future recipients will have the option of either paying interest on the money or pledging similar help to another needy student.

Other members of the Fair family have become interested in the project and will make contributions to the loan fund. Under the provisions of the loan fund, contributions may be accepted from other interested people.

Auxiliary News

Christmas Gift Suggestions

Auxiliary Loan Fund

Gifts through the years to one of our foremost projects, the Auxiliary Loan Fund, have made it a valuable adjunct to our recruitment program. A student nurse who has been accepted by an accredited school of nursing and is therefore vouched for by the director of the school is eligible to apply to the Auxiliary Loan Fund.

Mrs. M. L. Henry, McAlester chairman, and Mrs. Lewis C. Taylor, Oklahoma City, secretary, work with a committee of the five immediate past presidents to plan the rules governing the Nurse Loan Fund which has helped many worthy students in the years past.

A notable gift from a county medical society was the Semi-centennial gift last year of the Pottawatomie County Medical Society honoring the Founders of the Woman's Auxiliary—the first in the United States—at Shawnee, Indian Territory.

American Medical Education Foundation

Again this year as in previous years, members of the Woman's Auxiliary have increased their gifts to America's medical schools through the American Medical Education Foundation. Great ingenuity and hard work by Auxiliary members were directly responsible for this marked progress. Particularly successful were the use of Sympathy Cards and In Appreciation Cards which were used when the contributor wished to make a gift to the AMEF in honor of some individual. In addition to the members who send separate gifts, nearly every county auxiliary made gifts from their treasuries to the Foundation.

The American Medical Education Foundation was established in 1951 by the AMA and is dedicated to the private support of medical education in this country. The Auxiliary has contributed to it since 1952. The

privilege of naming which medical school will be the recipient of the gift has encouraged many individual member gifts.

Today's Health

As the holiday season approaches we are reminded that the *Today's Health* magazine is an excellent gift for friends, relatives, teachers, school and church libraries. Each auxiliary member has a responsibility to see that it is placed in her husband's office. The recent project for "Increased Reception Room Readership" produced a large number of new subscriptions. Give *Today's Health* gift subscriptions as a means for promoting the Auxiliary's 1958-59 theme, "Safeguard Today's Health for Tomorrow." The person who feels well has little concern about his health until it is threatened. Good health is of paramount interest only when you are ill, fear illness, or are vitally concerned about someone who is ill.

Subscriptions may also be prizes for 4-H club winners, at Science Fairs, or for other contests. Members-at-large can do great service through gift subscriptions, particularly in rural areas.

Paramedical Careers Recruitment

The nurse recruitment program of the medical auxiliary has been enlarged in scope and given a new name, Recruitment for Paramedical Careers. More than 150 health professions and occupations are now recognized. The shortages of nurses started the original recruitment program. The need for graduates in some paramedical fields is even more acute. High school students, their parents, or vocational counselors may not know about the career opportunities in these areas. The same kind of effort by the medical auxiliary that has helped in nurse recruitment can be applied to these newer and less-known careers.

As the wife of a physician each auxiliary

member should do whatever she can to help solve the shortage problem in allied medical fields. Much can be done on an individual basis, by keeping ourselves well informed, by enlisting the interest and help of our husbands and by providing their offices and waiting rooms with material on the opportunities and job requirements in the health careers.

Recruitment activities are closely related to many auxiliary projects. You do not have to be a member of the recruitment committee in order to be active in this work. The newly named "Community Service" committee encompasses the recruitment program. The Mental Health committee in its program makes a plea for more trained personnel and urges the giving of adequate graduate scholarships to help encourage more qualified workers in that field.

The task of bringing to young people a knowledge of the needs and opportunities in the paramedical field is a challenging one. The true goal of the recruitment program is guidance, so that high school students may choose more intelligently the careers suited to their talents and enjoy a life of rewarding service. Future Nurses clubs and Medical Career clubs are sponsored by the medical auxiliary and the League of Nursing in more than forty high schools in Oklahoma. The chief aim of these groups is to obtain authentic information regarding the various fields of medicine and health careers in order that the wisest career choice may be made by each individual student.

SAMA Auxiliary Organized In Tulsa

Mrs. Robert Simon, President of the Woman's Auxiliary to the Student American Medical Association, recently visited Tulsa where she assisted in the organization of the Tulsa SAMA Auxiliary. The wives of interns and resident doctors of St. John's and Hillcrest hospitals were invited.

The organizational meeting was held in the home of Mrs. Iron H. Nelson, State Auxiliary president. Mrs. Logan Spann, Tulsa county auxiliary president, and Mrs. John Perry, sponsor, assisted in entertaining the new student auxiliary.

Have You Heard?

DOCTOR MARK L. EVERETT, dean and director of the University of Oklahoma Medical Center, spent six weeks in Europe this fall on a combination vacation and medical education journey.

He and Mrs. Everett toured Portugal, Italy, Austria, Switzerland, France and England.

In connection with activities of the Educational Council for Foreign Medical Graduates, Dr. Everett visited the Medical School at Innsbruck, the University of Paris, University of Florence, University of Rome and St. George's Medical College in London.

CLINTON GALLAHER, M.D., Shawnee, announced that Tom Lamar Johnson, M.D., became associated with him in the practice of ophthalmology in November. Doctor Johnson is a graduate of Southwestern Medical School, Dallas, and is Board eligible.

ROBERT H. AKIN, M.D., Oklahoma City Urologist, recently appeared on the program of the National Assembly of Surgeons of Mexico as one of four guest speakers from the U.S.

CHET BYNUM, M.D., 1957 O.U. graduate, has joined the Bynum Clinic in Pryor where he will be in association with his brother, William R. Bynum, M.D.

PAUL E. CRAIG, M.D., Tulsa, is the author of a new book for the laity, entitled "Know Your Doctor." The book was published in October by the Exposition Press of New York.

EDWARD L. GREENBERGER, M.D., and MRS. GREENBERGER have been in Lima, Peru, where Doctor Greenberger attended the Sixth Inter-American Congress of Radiology.

J. H. FOERTSCH, M.D., Chickasha physician, was recently certified by the American Board of Internal Medicine.

25 YEARS AGO



Articles published in *The Journal* of the Oklahoma State Medical Association December, 1933.

The Physician's Increasing Interest in Mental Hygiene

Henry H. Turner, M.D., F.A.C.P.

Assistant Professor of Medicine

University of Oklahoma School of Medicine
Oklahoma City

I am convinced that the physician is more interested in mental hygiene than ever before; that he is rapidly learning how to treat the neurotics; that he has quit giving them "shot-gun" prescriptions, thereby increasing their invalidism. He has quit laying every nervous ailment to the sexual organs. He has quit removing ovaries to remove fears and anxieties, and quit circumcising the ladies to allay their sexual abnormalities. He is fast learning that these same sexual erraticisms occur in the men, who have no ovaries. He is studying more the home life, the personal family, maladjustments, correcting these, and thereby restoring happiness, not by "shot-gun" prescriptions, not by dissecting, but oft-times, with simple psycho-therapeutic measures. In other words, he is treating the whole situation, and getting results.

The physician of today is becoming more interested in the early recognition, early care and treatment, and prevention of such mental disorders so frequently seen in this institution, and which we have been privileged to see today. He is detecting earlier the symptoms of neuro-syphalis, and is instituting treatment, thereby arresting or avoiding paresis. He is watching and adjusting the peculiar "shut-in" boy or girl, thereby preventing the development of praecoxes. He is recognizing the early endocrinopathies. He is advising young parents how to best bring up their children to be happy, well adjusted, free from "apron-strings," and able to stand upon their own; thus preventing many behavior problems which have been the terror of our schools and homes. He is winning their confidence by soothing their sorrows, calming their fears, and sustaining their hopes. He is realizing that when you relieve a man's fear and give him hope, he is then well on the road to recovery.

Editorial Notes—Personal and General

Dr. and Mrs. Curt Von Wedel, Oklahoma City, have returned from a motor trip to Estes Park, Colorado, where they spent a week at their cabin.

Deaths

CANNON DEUGAR MOORE, M.D.
1897-1958

Cannon Deugar Moore, M.D., 61 year-old Oklahoma City physician, died Wednesday, November 12. Born in Venice, Texas, Doctor Moore took his pre-medical training at Southwestern State College in Durant, Oklahoma and in 1922, he graduated from Baylor University College of Medicine in Houston.

Doctor Moore served his internship at Robert B. Green Hospital in San Antonio and spent three years in residency and surgical training at Bellevue, St. Bartholomew and Mt. Sinai Hospitals in New York City. In 1927, he established his practice in Oklahoma City.

CLASSIFIED ADS

GENERAL PRACTITIONER needs associate for six months, thereafter to assume practice. Good suburban area of Tulsa, fine hospitals, excellent office facilities. Yearly gross \$60,000. Write Box 9681, W. Tulsa.

SUBURBAN OKLAHOMA CITY OFFICES: New, central heat and air conditioning, NW 39th and MacArthur. Plenty of free parking space, reasonable rent, 200 to 2,000 sq. ft. Frontage. Next to Putnam City School. R.R. 10, Box 616. WH 9-5646.

FOR RENT: Professional office space for two or three physicians. Reasonable rent. Plenty of off-the-street parking space. Contact James R. Ricks, M.D., 2312 N.W. 23rd Street, Oklahoma City. JA 5-7438.

CLASSIFIED ADVERTISING RATES

Members of the Association or widows of members are entitled to three months complimentary advertisement in this section.

Regular classified rates are \$5.00 per column inch (1 column wide and 1 inch deep). Advertisements must be received by the 15th of the month preceding the publication date.

PHYSICIAN PLACEMENT

General Practice

Albert Stanley Bailey, Jr., M.D., P.O. Box 1381, Westhampton Beach, L. I., New York, age 28, married, graduated from University of Oklahoma, 1955, presently in military service, will be available May, 1959.

John W. Kennard, M.D., 20 Olson Lane, Fort Rucker, Alabama, age 26, married, graduated from Bowman Gray School of Medicine, 1956, presently in military service, will be available September, 1959.

Robert Emmett Myers, M.D., 872 Ravine Drive, Cleveland 12, Ohio, age 28, married, graduated from University of Arkansas, 1955. Would like to do general practice with emphasis on pediatrics, veteran, will be available September, 1959.

Robert Glenn White, Jr., M.D., 431 Saratoga, San Antonio, Texas, age 26, married, graduated from University of Oklahoma, 1956, presently in military service, will be available August 2, 1959.

John D. Wise, Booneville, Arkansas, age 30, married, graduated from University of Arkansas, 1954, veteran, available immediately.

Gerald C. Zumwalt, M.D., 1701 Avenue P, Del Rio, Texas, age 27, married, graduated from University of Oklahoma, 1956, veteran, will be available July, 1959.

Internal Medicine

Oscar C. Beasley, Jr., M.D., University Hospitals, Iowa City, Iowa, age 31, married, graduated from Vanderbilt University, 1952, veteran, will be available July 1, 1959.

William S. Harrison, M.D., 2623 Pittsfield Blvd., Ann Arbor, Michigan, age 31, married, graduated from University of Oklahoma School of Medicine, 1953, veteran, will be available September 1, 1959.

Locum Tenens

Don Allen Mills, M.D., 3911 Burns Place, S.E., Washington, D.C., age 34, married, veteran, graduated from Georgetown University School of Medicine, 1958, wants to do general practice for two years prior to specialized training. Will be available July 1, 1959.

Pediatrics

Prentiss Edwards Findlay, M.D., 1500 Wakefield Place, New Orleans 22, Louisiana, age 29, married, graduated from Emory University, Atlanta, 1954, non-eligible for military service, will be available July 15, 1959.

Psychiatry

C. Frank Knox, M.D., 1922 Northwood Apartments, Ann Arbor, Michigan, married, age 32, graduated from Washington University, St. Louis, Missouri, 1954, veteran, now completing a four years psychiatric residency, will be available June, 1959.

Surgery

(Name on Request) 32 years old, married, graduated from Tulane, 1952, veteran, board eligible in surgery.

Philadelphia, Pennsylvania, age 36, married, graduated from Jefferson Medical College, 1948, veteran, is now available.

Austin Leonard Gardner, M.D., 57 E. 38th Street, Indianapolis, Indiana, age 32, married, graduated from Indiana University School of Medicine, 1952, veteran, is now available.

Owen Foster Kline, Jr., M.D., 4712 Warrington Drive, Flint, Michigan, married, graduated from University of Colorado, 1954, not eligible for military service at the present time, will be available July 1, 1959.

General Surgery

Clyde William Draughon, M.D., McGuire Hospital, Box 27, Richmond, Virginia, age 35, married, graduated from University of Oklahoma School of Medicine, 1954, veteran, will be available July 1, 1959.

Tuberculosis

Helen C. Sharp, M.D., 620½ N. Broadway, Pittsburgh, Kansas, single, graduated from University of Kansas, 1928, prefers to do industrial or student health work and is presently available.

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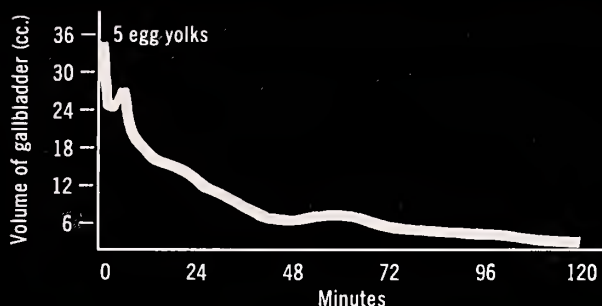
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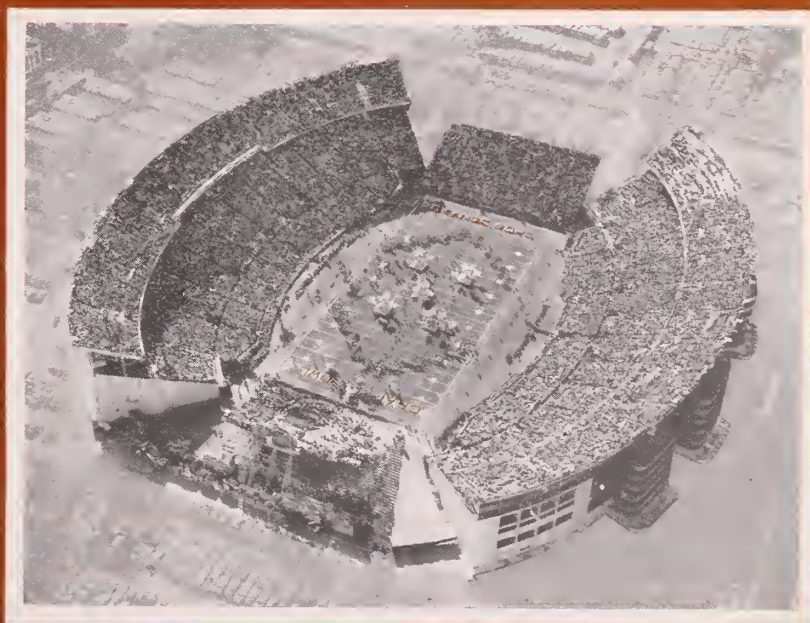
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